

Trapeziid crabs (Crustacea, Brachyura, Xanthoidea, Trapeziidae) of the Indian Ocean and the Red Sea

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ABSTRACT

Twenty-seven species belonging to five genera of the family Trapeziidae inhabit the Indian Ocean and the Red Sea. These are: *Hexagonalia brucei*, *Quadrrella boopsis*, *Q. coronata*, *Q. maculosa*, *Q. reticulata*, *Q. serenei*, *Tetralia cavimana*, *T. cinctipes*, *T. fulva*, *T. nigrolineata*, *T. rubridactyla*, *T. vaninii*, *Tetraloides heterodactyla*, *Tetraloides nigrifrons*, *Trapezia cymodoce*, *Tr. digitalis*, *Tr. ferruginea*, *Tr. flavopunctata*, *Tr. formosa*, *Tr. guttata*, *Tr. lutea*, *Tr. punctipes*, *Tr. richtersi*, *Tr. rufopunctata*, *Tr. septata*, *Tr. speciosa*, *Tr. tigrina*. The taxonomic status of one of these species, *Quadrrella serenei* Galil, 1986, is discussed and the species is redescribed. *Q. serenei* was initially referred to as *Q. cyrenae* Ward, 1942 but it is concluded that Ward used specimens of *Q. maculosa* Alcock, 1898 in its description; *Q. lewinsolmi* Galil, 1986 is a subjective synonym of *Q. serenei*. Another species, *Trapezia punctipes* Castro, 1997, is a new record for the region.

KEY WORDS

Crustacea,
Brachyura,
Trapeziidae,
Indian Ocean,
Red Sea,
symbiosis.

RÉSUMÉ

Trapeziidae (Crustacea, Brachyura, Xanthoidea) de l'océan Indien et de la mer Rouge.

Vingt-sept espèces appartenant à cinq genres de la famille Trapeziidae vivent dans les eaux de l'océan Indien et de la mer Rouge. Il s'agit de : *Hexagonalia brucei*, *Quadrrella boopsis*, *Q. coronata*, *Q. maculosa*, *Q. reticulata*, *Q. serenei*, *Tetralia cavimana*, *T. cinctipes*, *T. fulva*, *T. nigrolineata*, *T. rubridactyla*, *T. vaninii*, *Tetraloides heterodactyla*, *Tetraloides nigrifrons*, *Trapezia cymodoce*, *Tr. digitalis*, *Tr. ferruginea*, *Tr. flavopunctata*, *Tr. formosa*, *Tr. guttata*, *Tr. lutea*, *Tr. punctipes*, *Tr. richtersi*, *Tr. rufopunctata*, *Tr. septata*, *Tr. speciosa*, *Tr. tigrina*. La position taxonomique d'une espèce, *Quadrrella serenei* Galil, 1986, est discutée et l'espèce est redécrite. *Q. serenei* a été initialement désignée comme *Q. cyrenae* Ward, 1942 mais on conclut que Ward a utilisé des spécimens de *Q. maculosa* Alcock, 1898 dans sa description ; *Q. lewinsolmi* Galil, 1986 est un synonyme subjectif de *Q. serenei*. Une autre espèce, *Trapezia punctipes* Castro, 1997, est signalée dans la région pour la première fois.

MOTS CLÉS

Crustacea,
Brachyura,
Trapeziidae,
océan Indien,
mer Rouge,
symbiose.

INTRODUCTION

Although included by Serène (1984) in his monograph of the Xanthoidea of the western Indian Ocean and the Red Sea, the more recent revisions of the Trapeziidae by Galil (1985, 1986a, 1986b, 1986c, 1988a, 1988b), Galil & Clark (1988), Galil & Lewinsohn (1983, 1984, 1985) and Castro (1996, 1997a, 1997b, 1998b, 1999) have prompted a reexamination of material from the region, especially that examined by Serène himself. Several collections, particularly those at the Muséum national d'Histoire naturelle, Paris, as well as specimens examined live have served as the basis for this study. Not included here are six species that were included in the Trapeziidae by Serène (1984): *Calocarcinus africanus* Calman, 1909, *C. habei* Takeda, 1980, *Domecia glabra* Alcock, 1899, *D. hispida* Eydoux et Souleyet, 1842, *Jonesius triunguiculatus* (Borradaile, 1902) and *Palmyria palmyrensis* (Rathbun, 1923). Their position within the Xanthoidea needs to be reexamined.

References only list records for the area and should not be interpreted as complete synonymies. One exception is *Quadrella serenei* Galil, 1986, which is revised. Measurements are given as carapace width (cw) and carapace length from the median sulcus (cl). Geographic names follow their English spelling in the third (1993) edition of the *Times Atlas* (Times Books, London).

The specimens studied are deposited in institutions that are indicated in the text as follows:

| | |
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| BMNH | Natural History Museum (former British Museum [Natural History]), London, U.K.; |
| BPBM | Bernice P. Bishop Museum, Honolulu, Hawaii, USA; |
| CBM | Natural History Museum and Institute, Chiba, Japan; |
| LACM | Natural History Museum of Los Angeles County, Los Angeles, USA; |
| MHNR | Muséum d'Histoire naturelle, Saint-Denis, La Réunion, France; |
| NHS | Nanki High School, Tanabe, Japan; |
| MNHN | Muséum national d'Histoire naturelle, Paris, France; |
| RMNH | Nationaal Natuurhistorisch Museum (former Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands; |

| | |
|------|---|
| SAM | South African Museum, Cape Town, South Africa; |
| SMF | Forschungsinstitut Senckenberg, Frankfurt am Main, Germany; |
| USNM | National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA; |
| WAM | Western Australian Museum, Perth, Australia; |
| YU | Department of Biology, York University, York, U.K.; |
| ZISP | Zoological Institute, St. Petersburg, Russia; |
| ZMMU | Zoological Museum, Moscow State University, Moscow, Russia; |
| ZRC | Zoological Reference Collection, National University of Singapore, Singapore. |

LIST OF SPECIES

Hexagonalia brucei (Serène, 1973)

Quadrella boopsis Alcock, 1898

Quadrella coronata Dana, 1852

Quadrella maculosa Alcock, 1898

Quadrella reticulata Alcock, 1898

Quadrella serenei Galil, 1986

Tetralia cavimana Heller, 1861

Tetralia cinctipes Paulson, 1875

Tetralia fulva Serène, 1984

Tetralia nigrolineata Serène et Dat, 1984

Tetralia rubridactyla Garth, 1971

Tetralia vaminii Galil et Clark, 1988

Tetraloides heterodactyla (Heller, 1861)

Tetraloides nigrifrons (Dana, 1852)

Trapezia cymodoce (Herbst, 1801)

Trapezia digitalis Latreille, 1828

Trapezia ferruginea Latreille, 1828

Trapezia flavopunctata Eydoux et Souleyet, 1842

Trapezia formosa Smith, 1869

Trapezia guttata Rüppell, 1830

Trapezia lutea Castro, 1997

Trapezia punctipes Castro, 1997

Trapezia richtersi Galil et Lewinsohn, 1983

Trapezia rufopunctata (Herbst, 1799)

Trapezia septata Dana, 1852

Trapezia speciosa Dana, 1852

Trapezia tigrina Eydoux et Souleyet, 1847

SYSTEMATIC ACCOUNT

Family TRAPEZIIDAE Miers, 1886

Genus *Hexagonalia* Galil, 1986*Hexagonalia brucei* (Serène, 1973)

Quadrella brucei Serène, 1973: 202, figs 3, 8, 17-19, pl. 2A-D (Kenya); 1984: 288, fig. 192, pl. 41B, C (Kenya).

Hexagonalia brucei - Galil 1986c: 276, figs 1, 2 (Kenya).

MATERIAL EXAMINED. — **Kenya.** "Manihine", cr. 331, 2°33'S - 40°54'E, 100 m, 11.X.1971, A. J. Bruce coll.: 1 ♀ (MNHN-B 8190); cr. 333, 10.XII.1971: 1 ♂ (MNHN-B 8189); 2°58.6'S - 40°45'E, 170 m, cr. 333, 8.XII.1971: 4 ♂♂, 1 ♀ (MNHN-B 8191); 2°33'S - 40°54'E, 100 m, cr. 334, 9.I.1972: 6 ♂♂, 3 ♀♀ (MNHN-B 8192).

Mozambique Straits. "Van Gog", 50-170 m, on gorgonian?, 26.IV.1966, B. G. Ivanov coll.: 1 ♀ (ZMMU).

DISTRIBUTION. — Only known from a stylasterid coral and what appears to be a gorgonian in the western Indian Ocean at depths of 50-170 m.

Genus *Quadrella* Dana, 1851*Quadrella boopsis* Alcock, 1898

Quadrella boopsis Alcock, 1898: 227 (Bay of Bengal); 1899: pl. 38, fig. 1. - Serène 1975: 514, figs 5-12, pl. 2 (Madagascar); 1984: 287, fig. 191, pl. 41A (Madagascar). - Castro 1999 (Mozambique, Madagascar).

Quadrella bispinosa Borradaile, 1902: 266, fig. 58 (Maldives). - Barnard 1950: 819 (Mozambique). - Galil 1986c: 278, fig. 3A-D (Maldives).

MATERIAL EXAMINED. — **Mozambique.** Xai-Xai: 1 ♂ (SAM A10830).

Madagascar. Faux Cap region, 28.X.1958, A. Crosnier coll.: 2 ♂♂, 1 ♀ (MNHN-B 8188).

DISTRIBUTION. — Symbiont of dendrophylliid corals from the southwestern Indian Ocean to the western Pacific Ocean (Japan to French Polynesia) at depths of 10-95 m (see Castro 1999).

Quadrella coronata Dana, 1852

Quadrella coronata Dana, 1852a: 84. - Alcock 1898: 226 (northern Indian Ocean). - Borradaile 1902: 266 (Maldives). - Rathbun 1911: 235 (Seychelles). -

Klunzinger 1913: 317 (Red Sea). - Barnard 1947: 365 (South Africa); 1950: 281, fig. 52c, f (South Africa). - Serène 1984: 289, fig. 195, pl. 41F (Madagascar). - Galil 1986c: 282, figs 3E, 4C-E (Seychelles, Maldives, Sri Lanka). - Kalk 1995: 228, fig. 8.10a (as *Trapezia cymodocea* [sic]) (Mozambique).

Quadrella coronata var. *granulosa* Borradaile, 1902: 266 (Maldives). - Laurie 1906: 411 (Sri Lanka).

MATERIAL EXAMINED. — **Red Sea.** "Ob", 50 m, 8.VI.1956: 1 ♂ (ZMMU).

Persian Gulf. Off Khor Fakkan, 25°21'N - 56°23'E, 24-28 m, on *Siphonogorgia* sp., 3-4.VII.1995, M. Apel coll.: 4 ♀♀ (SMF 24083).

Seychelles. Reves T. Expedition, stn 21, 5°21.8'S - 56°10.4'E, 55 m, on gorgonian, 6.IX.1980: 1 ♂, 2 ♀♀ (MNHN-B 11622); stn 41, 4°43'S - 56°14.3'E, 53 m, on gorgonian, 13.IX.1980: 1 ♂, 1 ♀ (MNHN-B 11614); stn 44, 4°19.3'S - 56°11.9'E, 62 m, on gorgonian, 14.IX.1980: 2 ♂♂, 1 ♀ (MNHN-B 11615); stn 49, 3°54.4'S - 55°49.1'E, 57 m, on antipatharian, 15.IX.1980: 1 ♂ (MNHN-B 11623). — Northwest of D'Arros I., NIOP-E Tyro Expedition, stn 751, 5°24'S - 53°19'E, 56-59 m, on alcyonacean, 26.XII.1992: 2 ♂♂ (RMNH D 47202); stn 752, 5°24'S - 53°19'E, 45-55 m, on alcyonacean, 26.XII.1992: 3 ♂♂, 2 ♀♀ (RMNH D 47203); north of St. Joseph Atoll, stn 755, 5°23'S - 53°19'E, 50 m, on alcyonacean, 26.XII.1992: 4 ♂♂, 1 ♀ (RMNH D 47204); south of D'Arros I., stn 764, 5°29'S - 53°18'E, 50-55 m, 28.XII.1992: 1 ♂, 1 ♀ (RMNH D 47205); north of Poivre Atoll, stn 766, 5°44'S - 53°20'E, 43-48 m, 29.XII.1992: 1 ♂, 1 ♀ (RMNH D 47206); north of Poivre Atoll, stn 776, 5°42'S - 53°18'E, 42-45 m, 31.XII.1992: 1 ♂ (RMNH D 47207); west of Poivre Atoll, stn 778, 5°46'S - 53°11'E, 57 m, 1.I.1993: 1 ♀ (RMNH D 47208).

Comoro Is. Mayotte, Passe de Longogori, 40 m, on white gorgonian, April 1995, J. C. Martin coll.: 1 ♂ (MHNR-40).

Mozambique. "Algoa", 37°15'S - 18°30'E, 69 m, 17.VI.1994: 1 ♀ (SAM A41484).

South Africa. KwaZulu-Natal, W. H. Bell-Manley coll.: 1 ♀ (BMNH 1928.12.1.56). — KwaZulu-Natal, Port Durnford, "Meiring Naude", 29°00.9'S - 32°12.1'E, 200-220 m, 13.VI.1988: 1 ♂ (SAM A43254). — KwaZulu-Natal, off Sodwana Bay, "Sardinops", 31°8'S - 32°43'E, 70 m, on gorgonian, 2.VI.1990: 1 ♂ (SAM A43257), 1 ♀ (SAM A43258); Eastern Cape Province, off Lala Neck, 27°13.6'S - 32°14.3'E, 75 m, 8.VI.1990: 1 ♀ (SAM A43256); Eastern Cape Province, off Boteler Pt, 27°00.4'S - 32°55.2'E, 66 m, 6.VI.1990: 1 ♀ (SAM A43255). — KwaZulu-Natal, Durban, 1932: 1 ♂, 1 ♀ (SAM A7829). — Off Cape Agulhas, 50 m, 13-14.XII.1984, W. Litved coll.: 1 ♂, 1 ♀ (SAM A43253).

Madagascar. Nosy Bé, 5 m, 1971, P. Laboute coll.: 1 ♂ (MNHN-B 25239), 1 ♂, 1 ♀ (MNHN-B 25240), 1 ♂ (MNHN-B 25241).

Maldives. C. Anderson coll.: 1 ♀ (YU).

DISTRIBUTION. — Symbiont of alcyonaceans, antipatharians and gorgonians from the Red Sea, Persian Gulf and western Indian Ocean to the western Pacific Ocean (Japan to the Coral Sea) at depths of 5–220 m.

Quadrella maculosa Alcock, 1898

Quadrella coronata var. *maculosa* Alcock, 1898: 226 (Andaman Is.); 1899, pl. 38, fig. 2.

Quadrella maculosa — Rathbun 1911: 235 (part) (Seychelles, Cargados Carajos Is.). — Garth 1971: 188 (Maldives). — Serène 1984: 288, fig. 194, pl. 41E (Kenya, Madagascar). — Galil & Takeda 1985: 203 (Seychelles). — Galil 1986c: 285, fig. 5C–F (Red Sea, Seychelles, Maldives, Sri Lanka); 1988b: 178, fig. 10 (Red Sea).

Quadrella cyrenae Ward 1942a: 45, pl. 3, figs 5, 6 (part) (Mauritius).

MATERIAL EXAMINED. — **Gulf of Aden.** “Meteor”, MINDIK-Expedition, 12°31.2'N – 44°48.4'E, 76 m, 16.III.1987: 5 ♂♂, 3 ♀♀, 2 juv. (SMF 24084).

Kenya. 2°33'S – 40°54'E, 102 m, A. J. Bruce coll., 9.I.1972: 1 ♂ (MNHN-B 8198).

Seychelles. Reves 2 Expedition, stn 28, 4°48.1'S – 54°49.5'E, 50 m, 9.IX.1980: 1 ♀ (MNHN-B 11635); stn 34, 4°26.2'S – 54°53.0'E, 55 m, 10.IX.1980: 1 ♂, 1 ♀ (MNHN-B 11616); stn 35, 4°38.1'S – 54°52.1'E, 50–60 m, 10.IX.1980: 1 ♂, 1 ♀ (MNHN-B 11619); on antipatharian: 1 ♂, 1 ♀ (MNHN-B 11617); stn 49, 3°54.4'S – 55°49.1'E, 57 m, on antipatharian, 15.IX.1980: 1 ♂ (MNHN-B 11624); stn 58, 4°22.1' – 54°39.3'E, 60 m, 19.IX.1980: 1 ♀ (MNHN-B 11636); stn 60, 4°10.3'S – 55°11.8'E, 41–50 m, 19.IX.1980: 1 ♀ (MNHN-B 25721); stn 65, 58 m, 20.IX.1980: 1 ♂, 3 ♀♀ (MNHN-B 11637). — Northwest of D'Arros I., 5°24'S – 53°13'E, 56–59 m, on antipatharian, NIOP-E Tyro Expedition, stn 751, 26.XII.1992: 1 ♀ (RMNH D 47211); north of St. Joseph atoll, 5°23'S – 53°19'E, 50 m, on antipatharian, stn 755, 26.XII.1992: 1 ♂, 1 ♀ (RMNH D 47212); south of D'Arros I., 5°29'S – 53°18'E, 50–55 m, stn, 28.XII.1992: 1 ♂, 1 ♀ (RMNH D 47213).

Madagascar. Nosy Bé, 1971, P. Laboute coll.: 1 ♂, 1 ♀ (MNHN-B 25244), 6 ♂♂, 3 ♀♀ (MNHN-B 25246). — FAO 60, 22°08'S – 43°08'E, 115–135 m, 5.VI.1973: 1 ♂, 4 ♀♀ (MNHN-B 8196). — Tuléar, outer reef slope, 40–50 m, 18.VII.1971, B. Thomassin coll.: 1 ♂, 1 ♀ (MNHN-B 8197).

La Réunion. “Marion Dufresne”, stn CP43, 73–77 m, 18.VIII.1982: 2 ♀♀ (MNHN-B 11621).

DISTRIBUTION. — Symbiont of antipatharians from the Red Sea and the western Indian Ocean to the

Pacific Ocean (Japan to French Polynesia) at depths of 40–135 m.

Quadrella reticulata Alcock, 1898

Quadrella coronata var. *reticulata* Alcock, 1898: 227 (Sri Lanka, Andaman Is.).

Quadrella reticulata — Serène 1973: 199, figs 1, 7, 11–13, pl. 1 (Sri Lanka). — Galil 1988b: 179, fig. 11 (Red Sea).

MATERIAL EXAMINED. — **Sri Lanka.** Colombo: 1 feminized ♂, 2 ♀♀ (ZRC 1970.8.7.1–1).

DISTRIBUTION. — Symbiont of antipatharians from the Red Sea to the western Pacific Ocean (Japan to Indonesia) at depths of 18–82 m (see Castro 1999).

Quadrella serenei Galil, 1986

Quadrella serenei Galil, 1986c: 289, fig. 8A, B (Seychelles, Madagascar, Cargados Carajos Is.).

Quadrella maculosa — Rathbun 1911: 235 (part) (Cargados Carajos Is.). — Serène 1973: 204 (part). — Galil & Takeda 1985: 203 (part). — Castro 1997a: 63, pl. 7B (part) (Vanuatu); 1997b: 111 (part) (French Polynesia).

♀ *Quadrella cyrenae* Ward, 1942a: 45 (part) (Mauritius); 1942b: 53 (part) (Mauritius, Cargados Carajos Is.). — Michel 1964: 30 (Mauritius). — Guinot 1967: 275 (list). — Serène 1968: 89 (list).

Quadrella cyrenae — Serène 1975: 510, figs 1–4, 13, pl. 1 (Madagascar, Mauritius, French Polynesia); 1977: 51 (Seychelles); 1984: 288, fig. 193, pl. 41D (Kenya, Madagascar).

Quadrella sp. — Monod 1979: 9, figs 1–8 (French Polynesia).

Quadrella lewinsohni Galil, 1986c: 285, figs 5A, B, 6 (Nicobar Is.). — Poupin 1996: 57 (list). — Castro 1997b: 111 (French Polynesia).

Quadrella reticulata — Takeda & Marumura 1996: 7, pl. 1, figs 7, 8 (Japan).

Not *Quadrella cyrenae* Ward 1942a: pl. 3, figs 5, 6 (Mauritius) (= *Q. maculosa* Alcock, 1898).

TYPE MATERIAL. — **Madagascar.** Fort Dauphin, 50 m, October 1958, A. Crosnier coll.: 1 ♂ holotype (cl 12.0 mm, cw 14.6 mm; MNHN-B 8193). — FAO 60, 22°08'S – 43°08'E, 115–135 m, 5.VI.1973: 1 ♀ paratype (cl 12.8 mm, cw 16.5 mm; MNHN-B 8195).

MATERIAL EXAMINED. — **Kenya.** 2°33'S – 40°54'E, 100 m, 10.XII.1971, A. J. Bruce coll.: 1 ♂ (MNHN-B

8194). — "Professor Mesyatsev", 19.XII.1975: 2 ♀♀ (ZMMU); 50 m, 4.IV.1976: 1 ♀ (ZMMU Ma 4436).

Seychelles. Reves 2 Expedition, stn 17, 5°44.8'S - 56°39.1'E, 55 m, on antipatharian, 5.IX.1980: 1 ♀ (MNHN-B 26138); stn 31, 4°41.9'S - 54°36.7'E, 50 m, on antipatharian, 9.IX.1980: 1 ♂, 1 ♀ (MNHN-B 11632); stn 35, 4°38.1'S - 54°52.1'E, 50-60 m, on antipatharian, 10.IX.1980: 2 ♀♀ (MNHN-B 26137); stn 41, 4°43'S - 56°14.3'E, 50 m, 13.IX.1980: 1 ♀ (MNHN-B 11633); stn 53, 3°48.3'S - 55°20.7'E, 64 m, 17.IX.1980: 1 ♂ (MNHN-B 11634). — West of Aride I., 4°13'S - 55°34'E, 47 m, on antipatharian, NIOP-E Tyro Expedition, stn 702, 17.XII.1992: 1 ♀ (RMNH D 47209); north of Bird I., 3°42'S - 55°12'E, 55-63 m, on antipatharian, stn 730, 22.XII.1992: 2 ♂♂, 3 ♀♀ (RMNH D 47210); northwest of D'Arros I., 5°24'S - 53°31'E, 56-59 m, on antipatharian, stn 751, 26.XII.1992: 1 ♀ (RMNH); south of D'Arros I., 5°29'S - 53°18'E, 50-55 m, stn 764, 28.XII.1992: 1 ♂, 3 ♀♀ (RMNH); west of Poivre atoll, 5°46'S - 53°11'E, 57 m, stn 778, 1.I.1993: 1 ♀ (RMNH D 47214).

Madagascar. Nosy Bé, 1971, P. Laboute coll.: 1 ♀ (MNHN-B 25242), 1 ♂, 1 ♀, 3 juv., 1 first crab stage (MNHN-B 25243); 35 m, 10.IX.1970: 2 ♂♂, 1 ♀ (MNHN-B 25245). — 25°09'S - 47°14.2'E, 80-85 m, 3.III.1973, A. Crosnier coll.: 1 ♀ (MNHN-B 16476).

La Réunion. "Marion Dufresne", stn CP43, on antipatharian, M. de Saint Laurent coll.: 2 ♀♀, prezoaeas (MNHN-B 26136).

Cargados Carajos Is. Percy Sladen Trust Expedition, 90 m, 1.IX.1905; 1 ♀ (USNM 41344).

Chagos Archipelago. Ile Vache Marine, G. B. Reinicke coll., 3.III.1996: 1 ♂ (RMNH D 46883); Great Chagos Bank, Nelson I., 12.III.1996: 1 ♀ (RMNH D 46882); 13.III.1996: 1 ♂, 1 ♀ (RMNH D 46881).

Nicobar Is. Tillanchang I., I. Eibl-Eibesfeldt coll.: 1 ♂ holotype of *Q. lewinsolmi* Galil (cl 8.7 mm, cw 10.7 mm; SMF 9891), 1 ♀ allotype of *Q. lewinsolmi* (cl 13.4 mm, cw 10.6 mm; SMF 23851), 4 ♀♀ paratypes of *Q. lewinsolmi* (cl 7.2-10.1 mm, cw 9.0-12.7 mm; SMF 23852).

Japan. Kii Peninsula, off Shirahama, 40-50 m, on *Antipathes* sp., 21.X.1997, M. Marumura coll.: 1 ♂, 1 ♀ (NHS).

Vanuatu. MUSORSTOM 8, stn DW988, 19°16.04'S - 169°24.12'E, 372-466 m, 20.IX.1994: 1 juv. ♀ (MNHN-B 25766).

French Polynesia. Marquesas Is, Tahitara I., 10-15 m, on antipatharian, M. Denizor coll.: 1 ♂, 2 ♀♀ (MNHN-B 20411). — Marquesas Is, Tahuata I., J. Haywood coll., 24.IV.1971: 1 ♂, 1 ♀ (BPBM S11782). — Marquesas Is, Fatu Hiva, 10°29.0'S - 138°40.18'W, 49 m, 29.I.1991, J. Poupin coll.: 2 ♂♂, 1 ♀ (MNHN-B 26139). — Marquesas Is, Eiao I., 100 m, MUSORSTOM 9, stn CP 1157,

23.VIII.1997: 1 ♂, 1 ♀ (MNHN-B 26199), 1 juv. ♀ (MNHN-B 26197). — Marquesas Is, Nuku Hiva I., 104-109 m, MUSORSTOM 9, stn 1170, 25.VIII.1997: 1 ♂, 1 ♀ (MNHN-B 26200); 108-112 m, stn CP 1177, 25.VIII.1997: 2 ♂♂, 1 ♀ (MNHN-B 26196); 75 m, stn CP 1178: 1 ♂, 2 ♀♀, 2 juv. (MNHN-B 26198).

Unknown locations. "Vitiáz", cr. 17, stn 2803, 87-100 m, 7.I.1989: 3 ♂♂, 5 ♀♀ (ZMMU). — On antipatharians: 2 ♀♀ (SMF).

DISTRIBUTION. — Symbiont of antipatharians from the western Indian Ocean, Japan, Vanuatu (southwestern Pacific) and French Polynesia at depths of 10-466 m.

COLOUR. — A female from the Seychelles (RMNH D 47209) photographed live had brownish-gray carapace and blue-gray chelipeds and legs. The cheliped articulations and fingers were purple-pink; the eyes and dactylus and distal portion of the propodus of walking legs were yellow. Small specimens photographed before preservation in Japan (Takeda & Marumura 1996: pl. 1, figs 7, 8; as *Q. reticulata*) and Vanuatu, southwestern Pacific (Castro 1997a: pl. 7B; as *Q. maculosa*) had a pattern of purple lines on a light purple background. The purple lines formed a thin "M" across the anterior half of the carapace and a triangle on the posterior half. Thin, sinuous purple lines crossed the chelipeds. The distal portion of the merus and propodus of the walking legs were dark purple.

DISCUSSION

Ward (1942a) described *Q. cyrenae* from specimens collected in Mauritius. Ward's description and the identity of the holotype, however, are puzzling. Some of the characters given in the description (cheliped carpus "armed with two spines" and "sharp forwardly directed spine" on each side of the carapace; Ward 1942a: 45) and characters shown in two photographs (one anterior spine visible on each cheliped carpus, no visible thoracic suture; Ward 1942a: pl. 3, figs 5, 6) are diagnostic for *Q. maculosa*, a close species that is also found through the western Indian Ocean (see above). The presence on the cheliped merus of "about ten fine curved spines which become larger distally", however, is a character found only in juveniles and small adults of both *Q. cyrenae* and *Q. maculosa*. Although Ward may have based his description on a small specimen, the size of the holotype ("9 mm in maximum carapace width") is that of an adult. Of the seven

specimens of *Q. cyrenae* of a similar size (cw 9.0-10.4 mm) that were examined (MNHN-B 11632, 11634, 16476, 20411; BPBM), four had only rounded tubercles and three had two distal teeth on the cheliped merus, not the "ten fine curved spines" of Ward's description. Such ambiguities were pointed out by Serène (1975), who had initially made *Q. cyrenae* a junior synonym of *Q. maculosa* (Serène 1973). Serène examined a male specimen sent by the Mauritius Institute, presumably the holotype of *Q. cyrenae* although not labelled as such. The specimen did not agree with Ward's description but Serène recognized this and five other specimens he had examined (MNHN-B 8193, 20411 and one lost specimen) as belonging to a species different from *Q. maculosa* or any described species of *Quadrella*. Serène nevertheless opted to refer to it as *Q. cyrenae*, even though he questioned the authenticity of Ward's presumed holotype.

Barnard (1950: 281) suggested that *Q. cyrenae* was "probably to be regarded as a variety" of *Q. coronata* Dana, possibly based on the curved spines described on the cheliped merus by Ward (1942a). Galil & Takeda (1985) concluded instead that *Q. cyrenae* was a junior synonym of *Q. maculosa*, but Galil (1986) divided specimens previously identified as *Q. cyrenae* by Serène (1975) (as well as additional material) and described two new species: *Q. lewinsobni* Galil, 1986, and *Q. serenei* Galil, 1986.

The two species were differentiated by:

- 1) a narrower, V-shaped indentation between the two median lobes of the anterior carapace border in *Q. serenei* (wider and U-shaped in *Q. lewinsobni*);
- 2) a more prominent supraorbital angle in *Q. serenei*;
- 3) non-protuberant eyes in *Q. serenei* ("cornea extending beyond postorbital angle" in *Q. lewinsobni*);
- 4) "raised tubercles anteriorly, successively larger and more acuminate distally" in *Q. serenei* ("minute tuberculation" on the cheliped merus of *Q. lewinsobni*) (Galil 1986: 291).

Examination of extensive material (including most specimens seen by Serène and Galil) that varied in size from first crab stage to large individuals (female, cl 13.2 mm, cw 16.5 mm;

ZMMU) shows that *Q. serenei* and *Q. lewinsobni* are conspecific. The shape of the indentation between the median lobes of the anterior border of the carapace is clearly, as in other species of *Quadrella*, a highly variable character. It is mostly, although not exclusively, correlated with size. It is V-shaped in the smallest individuals, intermediate in some of the larger ones (female, cl 10.5 mm, cw 13.4 mm; ZMMU) and mostly, but not always, U-shaped in the largest individuals (Serène 1975: pl. 1B'; Galil 1986: fig. 5A). It is U-shaped, however, in the holotype of *Q. serenei* (Serène 1975: pl. 1B; 1984: pl. 41D; Galil 1986: fig. 8A). Large specimens of a similar size and same sex that were collected together varied in the shape of their indentation. The relative size of the supraorbital angle and of the eyes, which were also used to distinguish between the two species, are also variable characters influenced by the size and the position of the eyes when the specimen was preserved. One specimen (female, cl 7.2 mm, cw 9.0 mm; SMF 9891) had a bulging left eye but a non-bulging right eye. A similar situation is observed in the figure given by Galil (1986: fig. 5A) for a paratype specimen of the same SMF material. The ornamentation of the cheliped merus shows enormous variation, from spine-like teeth in the smallest juveniles (MNHN-B 25243, 25245; ZMMU) to various arrangements of small tubercles in the largest individuals (see below). Other differences deduced from the descriptions by Galil (1986: 285, 290), such as the number of teeth on the dactylus of the fourth pair of walking legs (fifteen in *Q. lewinsobni*, fourteen in *Q. serenei*) fall, as in the other characters, within the normal variation of a species.

It is thus concluded that:

- 1) it appears that Ward (1942) used specimens of *Q. maculosa* in his description of *Q. cyrenae*;
- 2) Serène (1975) retained the name *Q. cyrenae* for a Mauritius specimen that did not fit Ward's description as well as additional material that correctly showed to be different from *Q. maculosa*, even though he questioned the validity of the holotype and Ward's description;
- 3) the two species established by Galil (1986), *Q. lewinsobni* and *Q. serenei*, as well as the species referred to as *Q. cyrenae* by Serène, belong to a

single species that can be distinguished from *Q. maculosa* and the other species of *Quadrella*. The fate of Ward's holotype is unfortunately unknown. Michel (1964) does not indicate the presence of a holotype at the Mauritius Institute. Two specimens of *Q. cyrenae* Ward were listed, one from Mauritius and one "without data." A specimen currently present at the Institute is labelled as *Q. cyrenae* but not as its type (D. Guinot, personal communication). The type material designated by Galil (1986: 285) for *Q. lewinsohmi* (SMF 9891, 23851, 23852) is unfortunately in poor condition and all the appendages, except a cheliped in one paratype specimen, are dismembered. The holotype (MNHN-B 8193; Serène 1975: figs 2, 13, pl. 1A-E; 1984: fig. 193, pl. 41D [both as *Q. cyrenae*]; Galil 1986: fig. 8A) and paratype (MNHN-B 8195) that were designated by Galil (1986: 289) for *Q. serenei* are, however, in excellent condition.

The description of *Q. serenei* by Galil (1986) is accurate except some characters that pertained to its separation from *Q. lewinsohmi*, now regarded as a subjective junior synonym. These characters fall within the range of variation of the species. Under the 1985 International Code for Zoological Nomenclature, if two species are described simultaneously, the first reviewer chooses the valid one. The original description is therefore revised and expanded to incorporate this variation as well as new characters.

REDESCRIPTION AND MORPHOLOGICAL VARIATION

Carapace globose, constricted behind postorbital angle (Serène 1975: pl. 1A, B; 1984: pl. 41D; Galil 1986: figs 5A, 8A). Anterolateral borders inflated. Epibranchial teeth acute in juveniles and small adults, progressively smaller and tuberculate with increasing size of individuals. Acute intermediate tooth halfway between postorbital and epibranchial teeth in juveniles. Posterolateral margins arched. Frontal lobes triangular and acute; median sulcus deeper than submedian indentation, narrow and V-shaped in juveniles and small adults, often but not always progressively wider and U-shaped with increasing size. Lateral lobes separated from submedian lobes by

smaller, oblique or U-shaped sulcus and not extending as far forward as submedian lobes, except in smallest juveniles, which are equal in size. Supraorbital angle distally acute in juveniles and small adults, progressively tuberculate with increasing size of individuals. Postorbital tooth long, acute and directed outward. Inner suborbital tooth acute, almost as prominent as lateral frontal lobes. Eyes protuberant, relatively less so in largest individuals.

Conspicuous and complete suture (sternal suture 2/3) between second and third thoracic sternites. Interantennular septum triangular with rounded anterior border. Anterior edge of buccal frame sinuous, imperceptibly notched medially; notched edges at termination of exhalant canals. Exognath of third maxillipeds medially constricted, tooth at anterior margin rounded, less so in smallest juveniles. Ischium of endognath subrectangular, posterior half of inner margin with minute tubercles; merus with distal outer angle extended, distal inner angle obliquely cut, inner margin rounded.

Chelipeds massive and about equal (Serène 1975: pl. 1A, C, D; 1984: pl. 41D; Galil 1986: figs 5A, 8A). Anterior edge of ischium with several rounded tubercles. Merus subcylindrical, almost as long as carapace; ten to eleven acute teeth along anterior border in smallest juveniles, decreasing in number and length with size of individuals, until six to seventeen short, minute or rounded to sharp tubercles (larger and more pointed distally) in larger individuals. Carpus rounded, armed with two acute teeth on inner margin in smallest juveniles, decreasing in length and becoming tuberculate with increasing size of individuals; absent in largest. Dactylus and finger slender to slightly swollen, particularly in males.

First walking leg about twice as long as carapace. Propodus longer than dactylus, with twelve to twenty cornute spines on posterior margin. Dactylus with thirteen to sixteen triangular teeth that decrease in size proximally and row of thirteen to seventeen cornute spines; on anterior border irregular rows of short setae; on distal end acute, curved and cornute tooth. Propodus of fourth walking leg slightly longer than dactylus, with ten to sixteen cornute spines on posterior margin. Dactylus (Serène 1975: pl. 1E, E'; Galil

1986: figs 5B, 8B) with thirteen to sixteen triangular teeth that decrease in size proximally and a row of twelve to sixteen cornute spines; on distal end acute, curved and cornute tooth.

First male pleopod straight, tapered; short subdistal spinules (Serène 1975: figs 1-4; 1984: fig. 193; Galil 1986: fig. 6).

ADDITIONAL REMARKS

Adult *Q. serenei* can be differentiated from adult *Q. maculosa* (Serène 1973: pl. 3; 1984: pl. 41E; Galil 1986: fig. 5C-F), a close species, by the presence of a clear and complete sternal suture (absent in *Q. maculosa*), more slender chelipeds (thicker chelipeds and fingers, particularly in males, in *Q. maculosa*), smooth to slightly tuberculated lower margin of the cheliped propodus (tuberculated in *Q. maculosa*), very few or no setae on the outer margin of propodus of cheliped (many setae, some plumose, in *Q. maculosa*), wider and shallower median sulcus on the anterior border of the carapace, tuberculate epibranchial teeth in larger individuals (acute, prominent and directed upward in *Q. maculosa*), a cheliped merus that is unarmed or has several rounded to pointed tubercles along the anterior border (at least one or two acute distal teeth in *Q. maculosa*), sparse serae on the propodus and dactylus of the walking legs (many long setae in *Q. maculosa*) and a male pleopod that has short subdistal spinules (thicker and longer subdistal spinules in *Q. maculosa*; Serène 1973: figs 20-22; 1984: fig. 194). Preserved specimens of *Q. serenei* rarely show any hints of colour, whereas pigment is almost always observed on the carapace, walking legs and abdomen of *Q. maculosa* (Serène 1984: pl. 41E).

Juveniles and small adults of both species are similar and most of the characters used in the adults do not apply. The most reliable characters are the absence of abundant serae on the cheliped propodus and the presence of a sternal suture in *Q. serenei*. A suture was observed in only two small females of *Q. maculosa* (cl 2.8 mm, cw 3.5 mm, MNHN-B 25244; cl 3.8 mm, cw 4.9 mm, MNHN-B 11637). In small adults (cw around 4.0-9.0 mm) of *Q. serenei*, the epibranchial spines and the spines on the cheliped merus and carpus become tuberculated and those on the

cheliped carpus decrease in number much faster with increasing size than in *Q. maculosa*. An intermediate epibranchial spine on one or both sides was found in small specimens of both species.

This reappraisal of *Q. serenei* completes the revision of *Quadrella*, which now comprises six species: *Q. boopsis* Alcock, 1898 (see Castro 1999), *Q. coronata*, *Q. maculosa*, *Q. nitida* Smith, 1869, *Q. reticulata* (see Castro 1999) and *Q. serenei*.

Genus *Tetralia* Dana, 1851

All six known species of *Tetralia* are symbionts of reef corals (*Acropora*). Most species (as well as two others now placed under *Tetraloides* Galil, 1986) were grouped together as one species, *T. glaberrima* (Herbst, 1790) before a revision by Galil (1986a, 1986b, 1988a). The holotype of *T. glaberrima*, however, appears to be lost and thus the identity of the type species of the genus remains unknown. The identities of only a few of the Indian Ocean and Red Sea records of *T. glaberrima* have been determined after the examination of specimens or from colour descriptions. Still unidentified are records of Krauss (1843: South Africa), Hilgendorf (1879: Mozambique), Ortmann (1894: Tanzania), Borradaile (1902: Maldives), Doflein (1904: Seychelles), Laurie (1906: Sri Lanka), Calman (1909: Christmas I.), Lenz (1910: Europa I.), Stebbing (1910: South Africa), Chopra & Das (1937: Arabian Sea, Bay of Bengal, Andaman Sea), Varova (1943: Somalia), Stella (1953: Red Sea), Fourmanoir (1954: Madagascar), Sankaranurty (1961: Laccadive Is; 1962: Andaman Is; 1966a: India; 1966b: Seychelles, Mauritius, Maldives), Michel (1964: Mauritius), Garth (1974: Maldives, Sri Lanka), Lundoer (1974: Andaman Sea), Serène (1977: Seychelles), Tsareva (1980: Western Australia) and Garth (1984: Seychelles).

Tetralia cavimana Heller, 1861

Tetralia cavimana Heller, 1861a: 14 (Red Sea); 1861b: 353, pl. 3, figs 24, 25 (Red Sea). — Paulson 1875: 57, pl. 7, figs 7, 7a; pl. 9, fig. 1a-d (part) (Red Sea). — Kossmann 1877: 44 (Red Sea). — De Man 1880: 180 (Red Sea); 1881: 94 (Red Sea). — Miers 1884b: 537 (part) (Red Sea). — Galil 1988a: 59, figs 1a, 2a, b (Red

Sea, Gulf of Aden, Persian Gulf); 1988b: 170, fig. 6 (Red Sea, Gulf of Aden). – Hogarth 1994: 103 (Oman).

Tetralia glaberrima – Nobili 1906a: 143 (Persian Gulf); 1906b: 294 (Red Sea, Gulf of Aden). – Klunzinger 1913: 314 (Red Sea). – Bals 1924: 13 (Red Sea). – Monod 1938: 142 (Red Sea).

? *Tetralia glaberrima* – Nobili 1901: 16 (Red Sea). – Lauré 1915: 415, 463 (Red Sea). – Pesta 1928: 72 (Red Sea). – Gurney 1938: 77, pl. 2, figs 29-33 (Red Sea). – Ramadan 1936: 35 (Red Sea). – Stephensen 1945: 161, fig. 42C, D (Persian Gulf). – Hogarth 1989: 106 (Oman).

MATERIAL EXAMINED. — **Red Sea.** 1897. E. Jousseau coll.: 12 ♂♂, 3 ♀♀ (MNHN-B 8544). — Gulf of Suez, 29.XII.1928, R. Dollfus coll.: 2 ♂♂ (MNHN-B 13937), 2 ♀♀ (MNHN-B 13940). — Abu Lat I., "Calypso", 1952: 1 ♂, 3 ♀♀ (MNHN-B 13936), 1 ♀ (MNHN-B 13939); Marmar, 19.I.1952: 1 ♂ (MNHN-B 13942).

Gulf of Aden. Obock, 1893, M. Maindron coll.: 1 ♀ (MNHN-B 8539), 1 ♂ (MNHN-B 8538). — Musha I., 21.I.1904, C. Gravier coll.: 1 ♂ (MNHN-B 8537). — "Odyssey", cr. 34, 13°59.5'N - 48°24.7'E, 3-5 m, 23.IV.1985: 2 ♂♂, 1 ♀ (ZMMU Ma-4480).

Socotra. 1 ♂, 1 ♀ (YU).

Persian Gulf. Arzanah I., stn 53, 1901, J. Bonnier & C. Pérez coll.: 8 ♂♂, 10 ♀♀ (MNHN-B 11683), 2 ♂♂, 2 ♀♀ (MNHN-B 13941), 42 ♂♂, 48 ♀♀ (MNHN-B 16784), 17 ♂♂, 21 ♀♀ (MNHN-B 25375). — Juraid I., 27°11'48"N - 49°57'24"E, 14.X.1956, C. E. Dawson coll.: 1 ♂ (USNM 101921).

Kenya. Kilifi Creek, XII.1985, W. Baumeister coll.: 1 ♀ (SMF 17753).

DISTRIBUTION. — Only recorded from the Red Sea, Persian Gulf and the western Indian Ocean as far south as Kenya.

Tetralia cinctipes Paulson, 1875

Tetralia cavimana var. *cinctipes* Paulson, 1875: 60, pl. 7, fig. 8 (Red Sea).

Tetralia heterodactyla – Heller 1861a: 14 (part) (Red Sea); 1861b: 353 (part) (Red Sea). Not *Tetraloides heterodactyla* (Heller, 1861).

Tetralia glaberrima – Alcock 1898: 223 (part) (northeastern Indian Ocean). – Borradaile 1902: 265 (part) (Maldives). – Klunzinger 1913: 314 (part) (Red Sea).

Trapezia digitalis forme *typica* – Bouvier 1915: 273 (part) (Mauritius). Not *T. digitalis* Latreille, 1828.

Tetralia glaberrima pullidactyla – Garth 1971: 185

(Maldives). – Serène 1984: 282, pl. 40C (Mozambique Channel, La Réunion).

Tetralia cinctipes – Galil 1986b: 97, figs 1-3 (Red Sea, Seychelles); 1988b: 171, fig. 7 (Red Sea). – Galil & Clark 1988: 138, figs 1A, 3A, 4A, 4F, 5A, 6A (Somalia, Kenya). – Castro 1997a: 64 (Madagascar, La Réunion).

MATERIAL EXAMINED. — **Seychelles.** Remire Reef, 12.II.1972, A. J. Bruce coll.: 2 ♂♂, 1 ♀ (MNHN-B 13344). — Mahé, North East Point, NIOP-E Tyro Expedition, stn 604, 4°35'S - 55°28'E, reef flat and slope to 5 m, 8.XII.1992, C. Fransén coll.: 1 ♂ (RMNH D 47215); La Digue I., stn 735, 4°23'S - 55°50'E, 10 m, plate *Aeropora*, 23.XII.1992: 4 ♂♂, 1 ♀ (RMNH D 47216); St. Joseph Atoll, stn 759, 5°27'S - 53°21'E, 10 m, 28.XII.1992: 1 ♂, 1 ♀ (RMNH D 47217).

Comoro Is. Mayotte, 1901, Humboldt coll.: 2 ♂♂ (MNHN-B 13907).

Madagascar. Banc de Geysier, March 1972, A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 25376); Banc de la Zélé, 1 ♂, 1 ♀ (MNHN-B 8169).

La Réunion. S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 8168); 4 ♂♂, 3 ♀♀ (MNHN-B 16087); 30.VII.1977: 1 ♂, 1 ♀ (MNHN-B 14044). — Saint Gilles, reef flat, 17.IX.1982, M. de Saint Laurent coll.: 1 ♂ (MHNR-B 33). — La Saline, reef flat, 1 m, *Aeropora humilis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♂, 1 ♀ (MHNR-B 34), *A. abrotanoides*: 1 ♂, 1 ♀ (MHNR-B 35); *A. humilis*, 9.IX.1996: 1 ♂, 1 ♀ (MHNR-B 41); outer reef slope, 20 m, *A. humilis*, 8.IX.1996: 1 ♂, 1 ♀ (MHNR-B 36), *A. abrotanoides*: 1 ♂, 1 ♀ (MHNR-B 37).

Mauritius. Le Chaland, September 1911, P. Carié coll.: 1 ♂, 2 ♀♀ (MNHN-B 16910).

Indonesia (Indian Ocean). Pulo Boenta, "Te Vega", stn 93, 5°33'N - 95°09'E, 0-0.9 m, 20.XI.1963: 1 ♀ (USNM).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Persian Gulf and the Hawaiian Islands.

Tetralia fulva Serène, 1984

Tetralia glaberrima fulva Serène, 1984: 282 (part) (Seychelles, Madagascar).

Tetralia glaberrima – Wedenissow 1894: 413 (Somalia). – Alcock 1898: 223 (part) (northeastern Indian Ocean). – Borradaile 1902: 265 (part) (Maldives).

Trapezia digitalis forme *typica* – Bouvier 1915: 273 (part) (Mauritius). Not *T. digitalis* Latreille, 1828.

MATERIAL EXAMINED. — **Red Sea.** Perim, 1897, F. Jousseau coll.: 1 ♂ (MNHN-B 25688).

Tanzania. Dar es Salaam, 1971-1972, R. G. Hartnoll coll.: 2 ♂♂, 4 ♀♀ (BMNH 1988.878).

Seychelles. Praslin I., baie Ste Anne, 19.11.1972, A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 8180); Remire Reef, 12.11.1972: 1 ♂, 1 ♀ (MNHN-B 16820).

Comoro Is. Mayotte, M. Marie coll.: 1 ♀ (MNHN-B 25687).

Madagascar. Nosy Be, 23.V.1958, A. Crosnier coll.: 3 ♂♂, 3 ♀♀ (MNHN-B 8179); Nosy Komba Pass, September 1960: 1 ♂, 1 ♀ (MNHN-B 8183). — Nosy Komba Pass, 10 m, March 1971, Corfidr coll.: 2 ♂♂, 2 ♀♀ (MNHN-B 12797).

La Réunion. 30 m, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 16821). — Saint Gilles, reef flat, 17.IX.1982, M. de Saint Laurent coll.: 1 ♂, 1 ♀ (MHNR-B 53). — La Saline, reef flat, 1 m, 7.IX.1996, P. Castro & S. Ribes coll.: 2 ♂♂, 3 ♀♀ (MHNR-B 54).

Mauritius. Le Chaland, September 1912, P. Carié coll.: 3 ♂♂, 2 ♀♀ (MNHN-B 13935).

Chagos Archipelago. Speakers Bank, "Odissey", 5°03'N - 72°12.2'E, 20.VI.1984: 1 ♀ (ZISP).

Thailand (Andaman Sea). Phuket I., Cape Phanwa, 16.X.1990, T. Komai coll.: 1 ♂, 2 ♀♀ (CBMZC 2254).

Christmas I. 1940, C. A. Gibson-Hill coll.: 1 ♂, 1 ♀ (ZRC 1965.11.23.23-25).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Persian Gulf and the Hawaiian Islands.

Tetralia nigrolineata Serène et Dat, 1957

Tetralia glaberrima forma *nigrolineata* Serène et Dat, 1957: 120.

Tetralia glaberrima nigrifrons — Serène 1984: 283, pl. 40F (La Réunion). Not *Tetraloides nigrifrons* (Dana, 1852).

Tetralia glaberrima obscura — Morgan 1990: 51 (Western Australia).

MATERIAL EXAMINED. — **Seychelles.** Mahé, North East Point, NIOP-I. Tyro Expedition, sta 604, 4°35'S - 55°28'E, reef flat and slope, 4 m, 8.XII.1992, B. Hoeksema coll.: 1 ♂, 1 ♀ (RMNH D 47223); Mahé, cap Maçons/anse des Forbans, sta 612, 4°46'S - 55°31'E, reef flat and slope, 5 m, 12.XII.1992, C. Fransen coll.: 1 ♂ (RMNH D 47224).

Aldabra. 1 ♂, 1 ♀ (MNHN-B 14030).

Mozambique. Coconut Bay, 17.V.1973: 1 ♂ (SAM A43252).

La Réunion. S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 8182). — La Saline, reef flat, 1 m, 7.IX.1996, P. Castro & S. Ribes coll.: 2 ♂♂, 1 ♀, 1 juv. (MHNR-B 55); reef flat, 1 m, *Acropora abrotanoides*, 9.IX.1996:

2 ♂♂, 3 ♀♀, 1 juv. (MHNR-B 56); outer reef slope, 20 m, *A. humilis*, 8.IX.1996: 1 juv. (MHNR-B 57).

DISTRIBUTION. — Known from the western Indian Ocean as far north as the Seychelles to the western (Japan to the Coral Sea) and central (Marshall Is to Tonga) Pacific Ocean.

REMARKS

The carapace and walking legs of live juveniles and small adults from La Réunion varied from white to light pink or light brown as shown by Serène (1984: pl. 40F). The smallest individuals were all white. A crest was usually present on the cheliped merus of most of these small individuals.

Tetralia rubridactyla Garth, 1971

Tetralia glaberrima rubridactyla Garth, 1971: 185 (Maldives).

Tetralia glaberrima — Borradaile 1902: 265 (part) (Maldives) — Rathbun 1911: 235 (part) (Seychelles). — Barnard 1950: 280, fig. 52c, d (Mozambique). — Garth 1984: 120 (part) (Seychelles). — Kalk 1995: 228, fig. 8.10b (Mozambique). — Jones 1997: 234, unnumb. fig. (eastern Indian Ocean).

Tetralia glaberrima laevissima — Serène 1984: 282, fig. 188, pl. 40A, B (Kenya, Madagascar, La Réunion).

Tetralia glaberrima fulva Serène, 1984: pl. 40D (part) (Seychelles). Not *T. fulva* Serène, 1984.

Tetralia heterodactyla fusca — Serène 1984: 283 (part) (Seychelles). Not *Tetraloides heterodactyla* (Feller, 1861).

Tetralia rubridactyla — Galil 1988a: 65, figs 1d, 2g, h (Maldives, Sri Lanka). — Castro 1999 (Somalia, Kenya, Seychelles, Aldabra, Mozambique, Comoro Is, Madagascar, La Réunion, Mauritius, Maldives).

Tetralia innamorata Galil et Clark, 1988: 138, figs 1B, 2A, 3B, 4B, 4G, 6B (Somalia, Kenya, Tanzania, Seychelles, Aldabra).

MATERIAL EXAMINED. — **Somalia.** Gesira, 1981, M. Vanuini coll.: 1 ♂, 1 ♀ paratypes of *T. innamorata* (BMNH 1987.76).

Kenya. A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 13345); Mombasa I., 4°04.5'S - 39°40.4'E, 29.III.1971, 1 ♂ holotype of *T. innamorata* (BMNH 1987.23), 1 ♂ paratype of *T. innamorata* (BMNH 1987.24); 20 m, 14.III.1972: 2 ♂♂, 1 ♀ (MNHN-B 12795); Lamu Channel, 10.I.1972: 1 ♂, 1 ♀ (MNHN-B 8159); Tiwi, 4°14'S - 38°36'E, 28.II.1971: 1 ♀ (BMNH).

Seychelles. Coctivy I., Percy Sladen Trust Expedition,

1905: 1 ♂, 2 ♀♀ (USNM). — Praslin I., baie Ste Anne, 19.II.1972, A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 25383); Mahé, Port Victoria, 15.II.1972: 1 ♀ (MNHN-B 8203); Remire Reef, 12.II.1972: 1 ♂, 1 ♀ (MNHN-B 12799), 1 ♂, 1 ♀ (MNHN-B 13343), 1 ♀ (MNHN-B 13347). — Reves 2 Expedition, stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 1 ♀ (MNHN-B 12810). — Mahé, North East Point, NIOP-E Tyro Expedition, stn 604, 4°35'S - 55°28'E, reef flat and slope, 2-4 m, 8.XII.1992, C. Fransen coll.: 2 ♂♂, 3 ♀♀ (RMNH D 47226), 1 ♀ (RMNH D 47220); Mahé, anse Nord d'Est, stn 601, 4°34'S - 55°28'E, reef flat, 3 m, 5.XII.1992: 1 ♂, 1 ♀ (RMNH D 47225); Mahé, cap Maçons/anse des Forbans, stn 612, 4°46'S - 55°31'E, reef flat and slope to 5 m, 12.XII.1992: 1 ♂, 1 ♀ (RMNH D 47227), 1 ♀ (RMNH D 47221); Aride I., stn 711, 4°13'S - 55°40'E, 18-19.XII.1992: 1 ♂ (RMNH D 47228); north-east of Aride I., stn 714, 4°10'S - 55°44'E, 55 m, 19.XII.1992: 1 ♂ (RMNH D 47229); Bird I., stn 723, 3°42'S - 55°12'E, 8-12 m, 21.XII.1992: 1 ♂ (RMNH D 47230); St. Joseph Atoll, stn 759, 5°27'S - 53°21'E, 10 m, 28.XII.1992: 1 ♂, 1 ♀ (RMNH D 47231); Poivre Atoll, stn 767, 5°44'S - 53°18'E, 10 m, 29-31.XII.1992: 1 ♂, 1 ♀ (RMNH D 47222). — "Akademik Petrovsky", 21-24.XII.1983: 1 ♂ (ZMMU Ma-4488).

Aldabra. "Calypso", 20 m, 16.V.1954: 1 ♂, 1 ♀ (MNHN-B 14026), 1 ♀ (MNHN-B 14037); Comp Reef, 12 m, 15.V.1954: 2 ♂♂, 2 ♀♀ (MNHN-B 14027). — Main Channel, Royal Society Expedition, 10.XII.1967, J. D. Taylor coll.: 3 ♂♂, 1 ♀ (BMNH).

Farquhar I. 26.II.1972, A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 12796).

Comoro Is. Mayotte, M. Marie coll.: 1 ♂, 1 ♀ (MNHN-B 13913).

Mozambique. Inhaca I., June 1971: 1 ♂ (SAM A15437). — Delagoa [= Lourenço Marques] Bay: 1 ♂ (SAM A8209).

Madagascar. De Larrigues coll.: 1 ♂ (MNHN-B 13909). — Cap Diego, 15.VIII.1916, H. Poisson coll.: 1 ♂ (MNHN-B 13912). — Banc du Leven, 13.VII.1971, A. J. Bruce coll.: 1 ♀ (MNHN-B 13342); banc du Geysier, 14.III.1972: 1 ♂, 1 ♀ (MNHN-B 8160), 1 ♂, 1 ♀ (MNHN-B 8161).

La Réunion. 20 m, S. Ribes coll.: 1 ♂ (MNHN-B 8181); 1 ♂, 1 ♀ (MNHN-B 8178). — La Saline, outer reef slope, 20 m, 7.IX.1996, P. Castro & S. Ribes coll.: 2 ♂♂, 2 ♀♀ (MHNR-B 58), 1 ♂, 1 ♀ (MHNR-B 59); *Acropora butanilis*, 8.IX.1996: 1 ♂, 1 ♀ (MHNR-B 60); reef flat, 1 m, 7.IX.1996: 1 ♀ (MHNR-B 61); 9.IX.1996: 1 ♂, 1 ♀ (MHNR-B 62).

Mauritius. 1913, P. Carié coll.: 1 ♂, 1 ♀ (MNHN-B 25686); Port Louis: 1 ♂ (MNHN-B 13938); I.e. Chaland: 1 ♂ (MNHN-B 13911).

Maldives. Kaafu Atoll, 22.I.1991, P. Hogarth coll.: 1 ♀ (YU), 1 ♂, 1 ♀ (YU). — Vaavu Atoll, 12-14 m, 17.IV.1996, C. Anderson coll.: 1 ♀ (YU).

Indonesia (Indian Ocean). Poelau Tikoes [= Pulau Tikus], 19.XII.1925, H. C. Kellers coll.: 2 ♂♂, 3 ♀♀ (USNM 75881); November 1925: 2 ♂♂, 2 ♀♀ (USNM).

DISTRIBUTION. — Known from the western Indian Ocean as far north as Somalia to the Pacific Ocean (Japan to French Polynesia) except the Hawaiian Islands.

REMARKS

Colour variations are discussed as part of the revision of the species by Castro (1999).

Tetralia vanninii Galil et Clark, 1988

Tetralia vanninii Galil et Clark, 1988: 146, figs 1C, 2B, 3C, 4C, 4H, 6C (Somalia, Kenya). — Castro 1997b: 113, fig. 1 (Kenya, Seychelles).

MATERIAL EXAMINED. — **Socotra.** 1996: 1 ♀ (YU).

Kenya. Wasin Is, 5.X.1971, A. J. Bruce coll.: 10 ♂♂, 6 ♀♀ paratypes (BMNH 1986:1037).

Seychelles. Mahé, cap Maçons/anse des Forbans, NIOP-E Tyro Expedition, stn 612, 4°46'S - 55°31'E, reef flat and slope to 5 m, 12.XII.1992, C. Fransen coll.: 1 ♂, 1 ♀ (RMNH D 47218); Aride I., stn 711, 4°13'S - 55°40'E, 18-19.XII.1992: 1 ♀ (RMNH D 47219).

DISTRIBUTION. — Known from the western Indian Ocean (Socotra to the Seychelles) and the Pacific Ocean (Japan to French Polynesia) except the Hawaiian Islands.

REMARKS

Several colour morphs of what is morphologically identical to *T. vanninii* have been discovered in the western and central Pacific Ocean. Unfortunately, the live colour pattern of the type material from East Africa is unknown.

Genus *Tetraloides* Galil, 1986

The two known species of *Tetraloides* are symbionts of reef corals (*Acropora*). As in *Tetralia*, many Indian Ocean records for *Tetraloides* were most probably referred to as *Tetralia glaberrima*.

Tetraloides heterodactyla (Heller, 1861)

Tetralia heterodactyla Heller, 1861a: 14 (part) (Red Sea); 1861b: 354 (part) (Red Sea). — Paulson 1875: 60 (Red Sea).

?*Tetralia glaberrima* – Henderson 1893: 336, 367 (part) (India).

Tetralia glaberrima – Borradaile 1902: 265 (part) (Maldives).

Tetralia pubescens Klunzinger, 1913: 316, pl. 7, fig. 15 (Red Sea). – Bals 1924 (Red Sea). – Ramadan 1936: 36 (Red Sea).

?*Tetralia nigrifrons* – Stella 1953: 65 (Red Sea).

Tetralia heterodactyla heterodactyla – Garth 1974: 205 (part) (Maldives, Sri Lanka).

Tetralia heterodactyla fusca – Garth 1971: 185 (Maldives); 1984: 120 (Seychelles). – Serène 1984: 283, pl. 42B (part) (Seychelles, îles Glorieuses, La Réunion).

Tetraloides nigrifrons – Galil 1986a: 72, figs 1-3 (part) (Red Sea, Somalia).

Tetraloides heterodactyla – Galil 1988b: 174, fig. 8 (part) (Red Sea). – Galil & Clark 1988: 147, figs 1D, 3D, 4D, 4I, 6D (Red Sea, Somalia, Kenya, Christmas I.).

MATERIAL EXAMINED. — **Somalia**. Gesira, November-December 1976, M. Vannini coll.: 1 ♂ (RMNH D 47266).

Kenya. Bambuni Beach, 19-26.XI.1969, L. B. Holthuis coll.: 1 ♀ (RMNH D 47267).

Seychelles. Poivre Atoll, NIOP-E Tyro Expedition, stn 767, 5°44'S - 53°18'E, 10 m, 29-31.XII.1992, C. Fransen coll.: 1 ♀ (RMNH D 47232).

La Réunion. La Saline, outer reef slope, 20 m, *Acropora humilis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♂, 1 ♀ (MHNR-B 39).

Maldives. Thaa Atoll, 12 m, 11.IV.1996, C. Anderson coll.: 1 ♂, 1 ♀ (YU); Laamu Atoll, 8 m, 14.IV.1996: 1 ♂, 1 ♀ (YU).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Persian Gulf and the Hawaiian Islands.

Tetraloides nigrifrons (Dana, 1852)

Tetralia nigrifrons Dana, 1852a: 83.

Tetralia cavimanus – Miers 1884b: 537 (part) (Indian Ocean). Not *T. cavimana* Heller, 1861.

?*Tetralia glaberrima* – Henderson 1893: 336, 367 (part) (India).

Tetralia glaberrima – Borradaile 1902: 265 (part) (Maldives). – Rathbun 1911: 235 (part) (Seychelles).

Tetralia heterodactyla heterodactyla – Garth 1971: 185 (Maldives). Not *Tetraloides heterodactyla* (Heller, 1861).

Tetralia heterodactyla – Garth 1974: 205 (part) (Maldives, Sri Lanka); 1984: 120 (Seychelles). – Tsareva 1980: 121 (Western Australia).

Tetralia heterodactyla lisodactyla – Serène 1984: 285, fig. 189, pl. 42C (Seychelles, îles Glorieuses, La Réunion).

Tetraloides nigrifrons – Galil 1986a: 72 (part) (Seychelles, Christmas I., Maldives?, Sri Lanka?). – Galil & Clark 1988: 149, figs 1E, 3E, 4E, 4J, 5B, 6E (Somalia, Kenya, Christmas I.). – Castro 1997a: 72, pl. 1F (Seychelles, îles Glorieuses, La Réunion).

MATERIAL EXAMINED. — **Seychelles**. Coetivy I., Percy Sladen Trust Expedition, 1905: 1 ♂, 1 ♀ (USNM 41338). — Mahé, cap Maçons/lanse des Forbans, NIOP-E Tyro Expedition, stn 612, 4°46'S - 55°31'E, reef flat and slope to 5 m, *Acropora*, 12.XII.1992, C. Fransen coll.: 1 ♂, 1 ♀ (RMNH D 47233); St. Joseph Atoll, stn 759, 5°27'S - 53°21'E, 10 m, 28.XII.1992: 1 ♂, 1 ♀ (RMNH D 47234).

Aldabra. Main Channel, Royal Society Expedition, 10.XII.1967, J. Taylor coll.: 1 ♂, 1 ♀ (BMNH).

La Réunion. La Saline, outer reef slope, 20 m, *Acropora humilis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♂, 1 ♀ (MHNR-B 38).

DISTRIBUTION. — Recorded throughout the Indo-West Pacific region except the Red Sea, Persian Gulf, Indonesia and the Hawaiian Islands.

Genus *Trapezia* Latreille, 1828

All twenty-two known living species of *Trapezia* are symbionts of pocilloporid corals.

Trapezia cymodoce (Herbst, 1801)

Cancer cymodoce Herbst, 1801: 22, pl. 51, fig. 5 (Red Sea).

Trapezia cymodoce – Savigny 1817: pl. 5, fig. 2. (Red Sea). – Audouin 1826: 85 (Red Sea). – Coulon 1864: 569 (Red Sea). – Hilgendorf 1869: 76, pl. 2, fig. 4 (part) (Zanzibar); 1879: 798 (Mozambique). – Miers 1878: 408 (Red Sea, Sri Lanka); 1884b: 520, 535 (Seychelles, îles Glorieuses). – De Man 1880: 177 (Red Sea); 1881: 94 (Red Sea); 1887: 69 (Andaman Sea). – Henderson 1893: 336, 366 (India). – Wedenissow 1894: 412 (part) (Somalia). – Del Prato 1896: 183 (Red Sea). – Alcock 1898: 219 (Arabian Sea, Sri Lanka, Andaman Sea, Andaman Is., Nicobar Is.). – Nobili 1901: 15 (Red Sea); 1903: 18 (India); 1905: 10 (Tanzania); 1906a: 143 (Red Sea); 1906b: 292 (Red Sea, Gulf of Aden). – Borradaile 1902: 265 (part) (Maldives). – Doflein 1904: 104 (Seychelles). – Lenz 1905: 351, 390 (Tanzania, Aldabra, Europa I.);

1910: 552 (Europa L., Madagascar); 1912: 4 (Red Sea). — Laurie 1906: 410 (part) (Sri Lanka); 1915: 415, 460 (part) (Red Sea). — Calman 1909: 705 (Christmas I.). — Stebbing 1910: 304 (South Africa). — Rathbun 1911: 234 (part) (Seychelles, Cargados Carajus Is, Chagos Archip.). — Bouvier 1915: 272 (part) (Mauritius). — Gravier 1920: 469 (Madagascar). — Bals 1924: 13 (Red Sea). — Gravelly 1927: 144 (India). — Pesta 1928: 72 (Red Sea). — Bals 1935a: 145, 146 (Western Australia); 1935b: 40 (Western Australia). — Ramadan 1936: 35 (Red Sea). — Chopra & Das 1937: 410 (Arabian Sea, Bay of Bengal, Andaman Sea). — Gurney 1938: 76, pl. 2, figs 23-28 (Red Sea). — Monod 1938: 141 (Red Sea). — Vatová 1943: 22 (Somalia). — Stephensen 1945: 161, figs 42A, B (Persian Gulf). — Barnard 1950: 276, fig. 52a, b (part) (South Africa). — Tweedie 1950: 126 (part) (Cocos [Keeling] Is). — Stella 1953: 64 (Red Sea). — Fourmanoir 1954: 13 (part) (Madagascar). — Sankarankurty 1961: 131 (Laccadive Is); 1962: 147 (Andaman Is); 1966b: 51 (Seychelles, Maldives). — Guinot 1962a: 240 (part) (Red Sea, Maldives); 1962b: 2 (Gulf of Aden). — Michel 1964: 30 (Mauritius). — Day 1969: 117, unnumb. fig. (South Africa). — Kensley 1970: 104 (Mozambique). — Garth 1971: 188 (part) (Maldives); 1974: 205 (part) (Maldives, Sri Lanka); 1984: 120 (part) (Seychelles). — Serène 1971: figs 26, 28, 30, 32 (Mauritius); 1977: 50 (Seychelles); 1984: 272, fig. 179, pl. 38B (part) (Kenya, Madagascar, Seychelles). — Lamdoer 1974: 7 (Andaman Sea). — Edwards & Emberton 1980: 237 (Red Sea). — Tsareva 1980: 118 (Western Australia). — Turkey 1981: 59 (Mauritius). — Black & Prince 1983: 140 (Western Australia). — Galil 1988b: 161, fig. 1 (Red Sea). — Hogarth 1989: 106, 114 (Oman); 1994: 102 (Oman). — Morgan 1990: 51 (Western Australia). — Kalk 1995: 228; fig. 8.10c (as *Quadrella coronata*) (Mozambique). — Jones 1997: 234, unnumb. fig. (eastern Indian Ocean).

Trapezia coerulea Rüppell, 1830: 27, pl. 5, fig. 7, pl. 6, fig. 22 (part) (Red Sea). — Heller 1861a: 13 (Red Sea); 1861b: 348 (Red Sea); 1865: 25, 256, 261 (Nicobar Is). — Kossmann 1877: 44 (part) (Red Sea). — Richters 1880: 152 (Mauritius).

Grapsillus dentatus MacLeay, 1838: 67, pl. 3, unnumbered fig. (South Africa). — Krauss 1843: 35 (South Africa).

?*Trapezia dentifrons* — Hess 1865: 136 (Western Australia).

Trapezia ferruginea — Milne Edwards 1868: 71 (part) (Zanzibar, Madagascar).

Trapezia ferruginea var. *coerulea* — Paulson 1875: 53, 57, pl. 7, figs 4, 4a (Red Sea).

?*Trapezia ferruginea* var. *cymodoce* — Paulson 1875: 56, 57 (Red Sea).

Trapezia cymodoce var. *typica* — Ortmann 1893: 481 (Maldives); 1894: 54 (Tanzania).

?*Trapezia ferruginea* var. *dentata* — Borradaile 1902: 264 (Maldives).

Trapezia dentata — Klunzinger 1913: 310, pl. 4, fig. 10 (Red Sea).

Trapezia cymodoce var. *ornatus* — Chen 1933: 108, fig. 53 (Sri Lanka).

Quadrella rufopunctata — Chen 1933: III, fig. 55 (Sri Lanka).

MATERIAL EXAMINED. — **Red Sea.** No location: 3 ♂♂, 2 ♀♀ (MNHN-B 2925); 1 ♂ (MNHN-B 4342); Clot-Bey coll., 1 ♂, 2 ♀♀ (MNHN-B 2922), 2 ♀♀ (MNHN-B 2923), 2 ♀♀ (MNHN-B 2938), 1 ♀ (MNHN-B 2940 part); 1897, F. Jousseume coll.: 1 ♂, 1 ♀ (MNHN-B 9703), 2 ♂♂, 1 ♀ (MNHN-B 16604), 1 ♀, 3 ♀♀ (MNHN-B 16606), 2 ♂♂, 1 ♀ (MNHN-B 16899). — Tor [= El Tur]. January-July 1826, E. Rüppell coll.: 1 ♂ lectotype of *Trapezia coerulea* Rüppell (SMF 4101); 1 ♂, 2 ♀♀ syntypes of *T. coerulea* (SMF 1567); 10 ♂♂, 14 ♀♀ paralectotypes of *T. coerulea* (SMF 17716). — Gulf of Suez, end of canal, 1934, A. Gruvel coll.: 6 ♂♂, 1 ♀ (MNHN-B 16824). — Suez, Vaillant coll.: 1 ♂ (MNHN-B 2945). — Eilat, *Stylophora*: 1 ♂, 1 ♀ (MNHN-B 22355). — Massawa, stn 17, 1901, J. Bonnier & C. Pérez coll.: 4 ♂♂, 10 ♀♀ (MNHN-B 25372). — Sarsø I., "Xarifa", *Seriatopora*. 2-3 m, 16-21.XI.1957, S. Gerlach coll.: 3 ♂♂ (1 feminized by sacculinid), 1 ♀ (MNHN-B 16884). — Perim I., F. Jousseume coll.: 14 ♂♂, 15 ♀♀ (MNHN-B 25352). — Gulf of Suez, stn 11, 8.XII.1928, R. Dollfus coll.: 1 ♂ (MNHN-B 16896); stn 17 bis, 25.XII.1928: 3 ♂♂, 3 ♀♀ (MNHN-B 16904); Jubal, 29.XII.1928: 1 ♂ juv. (MNHN-B 16897); Gulf of Akaba, stn 38, 4.II.1929: 1 ♂ (MNHN-B 16903). — "Calypso", 1952: 1 ♂, 1 ♀ (MNHN-B 16607), 1 ♂ (MNHN-B 16825); Abu Lat I.: 1 ♂, 1 ♀ (MNHN-B 16605); stn 5: 1 ♂, 1 ♀ (MNHN-B 16602); stn 9: 1 ♂ (MNHN-B 16603); stn 100: 2 ♂♂, 4 ♀♀ (MNHN-B 16608).

Gulf of Aden. Aden, 1897, F. Jousseume coll.: 1 ♂, 1 ♀ (MNHN-B 16902). — Aden 1897, E. Simon coll.: 7 ♂♂, 3 ♀♀ (MNHN-B 25340). — Djibouti, 1893, M. Maindron coll.: 1 ♀ (MNHN-B 8538 part). — Djibouti, 15.I.1906, C. Gravier coll.: 1 ♂, 1 ♀ (MNHN-B 25353). — Djibouti, 1897, F. Jousseume coll.: 24 ♂♂, 24 ♀♀ (MNHN-B 25741); Obok: 1 ♂, 1 ♀ (MNHN-B 16905). — "Odissey", cr. 34, 13°59.5'N - 48°24.7'E, 3-5 m, 23.IV.1985: 6 ♂♂, 13 ♀♀ (ZMMU Ma-4477).

Oman. Muscat, M. Maindron coll.: 1 ♂, 1 ♀ (MNHN-B 17493). — *Pocillopora damicornis*, P. W. Glynn coll.: 3 ♂♂, 3 ♀♀ (LACM); Bandar Khayran, *Sylophora pistillata*, 28.IX.1982: 1 ♂, 1 ♀ (LACM);

- off Christian Cemetery, *P. damicornis*, 28.IX.1982: 2 ♂♂, 4 ♀♀ (LACM).
- Persian Gulf.** Juraid I., 27°11'48"N - 49°57'24"E, 4.X.1956, C. E. Dawson coll.: 1 ♂ (USNM 101920), 1 ♂ (USNM).
- Kenya.** Shimoni, 4°38.8'S - 39°21.7'E, 20.X.1971, A. J. Bruce coll.: 1 ♂, 2 ♀♀ (MNHN-B 8230).
- Tanzania.** Zanzibar, G. Grandidier coll.: 1 ♀ (MNHN-B 2927). — Zanzibar, L. Rousseau coll.: 1 ♀ (MNHN-B 2935 part), 2 ♂♂ (MNHN-B 2936). — Zanzibar, 4.IX.1959, A. J. Bruce coll.: 1 ♂, 1 ♀ (RMNH D 34987); 25.IX.1960: 2 ♀♀ (RMNH D 34986).
- Seychelles.** Mahé, 1892, Alluod coll.: 1 ♂, 2 ♀♀ (MNHN-B 23088). — Mahé, 1.VI.1966, A. J. Bruce coll.: 4 ♂♂, 2 ♀♀, 2 juv. (LACM); Praslin I., baie Ste Anne, 19.II.1972: 1 ♂, 1 ♀ (MNHN-B 8228), 1 ♂ (MNHN-B 8229); Curieuse Bay, *Seriatopora hystrix*, 20.II.1972: 2 ♂♂, 2 ♀♀ (MNHN-B 13341); Mahé, 15.II.1972: 1 ♂, 1 ♀ (MNHN-B 8227), 1 ♀ (MNHN-B 13339); Coetivy I., 32 m, 21.II.1972: 1 ♂ (MNHN-B 13333). — Reves 2 Expedition, 32 m: 1 ♂, 2 ♀♀ (MNHN-B 9698); stn 1, 5°24'S - 57°01.4'E, 55 m, 2.IX.1980: 1 ♀ (MNHN-B 12801); stn 7, 4°52.8'S - 56°01.4'E, 57 m, 30.IX.1980: 1 ♂, 1 ♀ (MNHN-B 12803); stn 18, 5°44.9'S - 56°35.5'E, 50 m, 5.IX.1980: 1 ♂, 3 ♀♀ (MNHN-B 12804); stn 24, 5°08.8'S - 55°25.5'E, 35 m, 8.IX.1980: 1 ♂ (MNHN-B 12800), 1 ♂, 1 ♀ (MNHN-B 11626); stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 2 ♂♂, 1 ♀ (MNHN-B 20655); stn 34, 4°25'S - 54°53.2'E, 60 m, 10.IX.1980: 3 ♂♂, 1 ♀ (MNHN-B 12807); stn 38, 5°02.6'S - 56°49'E, 44 m, 13.IX.1980: 1 ♂, 1 ♀ (MNHN-B 12805); stn 60, 4°10.3'S - 55°11.8'E, 46 m, 19.IX.1980: 1 ♂, 3 ♀♀ (MNHN-B 11625), 1 ♂ (MNHN-B 12802); stn 62, 4°10'S - 55°25.4'E, 68 m, 19.IX.1980: 1 ♀ (MNHN-B 12809). — West of Aride I., NIOP-E Tyro Expedition, stn 702, 4°13'S - 55°34'E, 47 m, 17.XII.1992: 1 ♂ (RMNH D 47235); north-west of Praslin I., stn 705, 4°16'S - 55°40'E, 25 m, 17.XII.1992: 3 ♂♂, 4 ♀♀ (RMNH D 47236); south-east of Mahé, stn 738, 4°45'S - 55°33'E, 35-45 m, 24.XII.1992: 1 ♂ (RMNH D 47237); north of Paire Atoll, stn 766, 5°44'S - 53°20'E, 43-48 m, 29.XII.1992: 1 ♂ (RMNH D 47238).
- Aldabra.** "Calypto", 1954: 1 ♂ (MNHN-B 14028); 42 m, 23.V.1954: 1 ♂, 1 ♀ (MNHN-B 14033).
- Saya de Malha Bank.** "Odyssey", cr. 33, 12-13 m, 9.VI.1984: 1 ♂, 1 ♀ (ZMMU); 6 ♂♂, 6 ♀♀ (ZMMU Ma-4413).
- Comoro Is.** Mayotte: 4 ♂♂, 3 ♀♀ (MNHN-B 16888).
- Îles Glorieuses.** 10 m, A. Crosnier coll., January 1973: 1 ♂ (MNHN-B 13338).
- Mozambique.** Lourenço Marques [= Maputo], June 1920: 1 ♂, 1 ♀ (SAM A43241). — Inhaca I., 19.II.1951, O. Tattersall coll.: 1 ♂ (BMNH). — Inhaca I., June 1971: 4 ♂♂, 4 ♀♀, 3 juv. (SAM A15432). — Magaruque, 23.V.1973: 1 ♂, 2 ♀♀ (SAM A43233).
- South Africa.** KwaZulu-Natal, Port Edward, 16.V.1939: 1 ♂, 1 ♀ (SAM A43235). — KwaZulu-Natal, Aliwal Shoal, 24 m, June 1980: 1 ♂, 1 ♀ (SAM A43234).
- Madagascar.** No location: 1 ♀ (MNHN-B 13340); 1903: 1 ♂, 1 ♀ (MNHN-B 16898); May 1919, R. Decary coll.: 1 ♀ (MNHN-B 16889), 1 ♀ (MNHN-B 16894); De Lartigues coll.: 1 ♀ (MNHN-B 16900). — Diego Suarez, May 1919, R. Decary coll.: 1 ♂, 2 ♀♀ (MNHN-B 23078). — Nosy Bé, 23.V.1958, A. Crosnier coll.: 5 ♂♂, 2 ♀♀ (MNHN-B 8224); Tuléar, October 1958: 1 ♀ (MNHN-B 8225); Ste Luce, 4 m, May 1960: 1 ♀ (MNHN-B 8226). — Tuléar, G. Grandidier coll.: 1 ♂, 1 ♀ (MNHN-B 4344 part). — Tuléar, G. Geay coll., 1906: 4 ♂♂, 5 ♀♀ (MNHN-B 25381). — Tuléar, G. Petit coll.: 1 ♂, 2 ♀♀ (MNHN-B 23077), 2 ♀♀ (MNHN-B 23094); Tamatave: 1 ♀ (MNHN-B 16892). — Tamatave, J. Millot coll.: 1 ♂ (MNHN-B 16890), 1 ♀ juv. (MNHN-B 16891), 3 ♂♂, 4 ♀♀ (MNHN-B 23087).
- La Réunion.** La Saline, outer reef slope, 40 m, *P. damicornis*, S. Ribes coll.: 1 ♂, 1 ♀ (MHNR-B 8); 30 m, 30.X.1977: 1 ♂, 1 ♀ (MNHN-B 8940). — Le Port, "Marion Dufresne", 10.IX.1982, H. Zibrowius coll.: 1 ♂, 1 ♀ (MNHN-B 12812); stn CP97, 35 m, 28.VIII.1982: 1 ♂ (MNHN-B 12811). — La Saline, reef flat, 1 m, *P. damicornis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♀ (MHNR-B 9).
- Mauritius.** 1913, P. Carié coll.: 13 ♂♂, 12 ♀♀ (MNHN-B 25379), 1 ♂ (MNHN-B 23082); 1914: 1 ♂ (MNHN-B 13945); 1919: 1 ♂, 1 ♀ (MNHN-B 9701); Port Louis, 1914: 21 ♂♂, 23 ♀♀ (MNHN-B 16785); récif du Grand Port, 1913: 6 ♂♂, 10 ♀♀ (MNHN-B 16786), 23 ♂♂, 28 ♀♀ (MNHN-B 25357); 1919: 1 ♂, 1 ♀ (MNHN-B 9702); Le Chaland, 28.XII.1912: 5 ♂♂, 6 ♀♀ (MNHN-B 25350); 1913: 1 juv. (MNHN-B 23053).
- Maldives.** Rasdu Atoll, 19.III.1958, W. Klauswitz coll.: 1 ♂ (SMF 12357).
- Sri Lanka.** Weligama Bay, 1912, L. Beer coll.: 1 ♂ (SMF 11745), 2 ♂♂, 2 ♀♀ (SMF 11740).
- Thailand (Andaman Sea).** Phuket I., Makhamb Bay, 26.VIII.1980, P. Castro coll.: colour photographs. — Phuket I., Cape Phanwa, 10.X.1990, T. Komai coll.: 2 ♂♂, 1 ♀ (CBM ZC 2281).
- Indonesia (Indian Ocean).** Batu Is, Pulo Bai, "Te Vega", stn 101, 0°1'S - 98°31'E, 25.XI.1963: 1 ♂ (USNM).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Hawaiian Islands and most of the central Pacific.

REMARKS

Records of *T. cymodon* most probably include

specimens of *T. lutea*. Both species have a conspicuous tomentum along the outer edge of the cheliped propodus.

Live individuals from La Réunion and Phuket Island, Andaman Sea coast of Thailand, showed the colour pattern characteristic of western Pacific populations (Castro 1997a: pl. 2A) but the dorsal surface of the carapace was often dark orange brown. A wide yellow to tan band crossed the ventral surface of the carapace and third maxillipeds.

Trapezia digitalis Latreille, 1828

Trapezia digitalis Latreille, 1828: 696 (Red Sea). — Heller 1861a: 14 (Red Sea); 1861b: 348, 350 (Red Sea). — Kossman 1877: 44 (Red Sea). — De Man 1880: 177 (Red Sea); 1881: 94 (Red Sea). — Alcock 1898: 222 (Sri Lanka). — Nobili 1906b: 293 (Red Sea). — Calman 1909: 705 (Christmas I.). — Rathbun 1911: 235 (Seychelles, Chagos Archip.). — Klunzinger 1913: 312, pl. 7, fig. 14 (Red Sea). — Balss 1924: 13 (Red Sea). — Pesta 1928: 72 (Red Sea). — Chen 1933: 111 (Sri Lanka). — Ramadan 1936: 35 (Red Sea). — Barnard 1950: 278 (South Africa). — Iweede 1950: 126 (Cocos [Keeling] Is.). — Michel 1964: 31 (Mauritius). — Garth 1971: 188 (Maldives); 1974: 205 (Maldives); 1984: 120 (Seychelles). — Edwards & Emberton 1980: 237 (Red Sea). — Tsareva 1980: 120 (Western Australia). — Black & Prince 1983: 140 (Western Australia). — Serène 1984: 277, fig. 185, pl. 38D (Seychelles, îles Glorieuses, La Réunion). — Galil 1988b: 163, fig. 2 (Red Sea). — Castro 1996: 536, fig. 2 (Red Sea, Seychelles, Madagascar, La Réunion, Mauritius).

Trapezia leucodactyla Rüppell, 1830: 28 (Red Sea).

?*Grapsillus subinteger* MacLeay, 1838: 67 (South Africa).

Trapezia ferruginea var. *digitalis* — Paulson 1875: 55, 57, pl. 7, figs 5, 6 (Red Sea).

Trapezia digitalis var. *typica* — Borradaile 1902: 265 (Maldives).

Trapezia digitalis forme *typica* — Bouvier 1915: 273 (part) (Mauritius).

?*Trapezia subinteger* — Ward 1942b: 100 (Chagos Archip.).

MATERIAL EXAMINED. — **Red Sea**, Jiddah, M. Botta coll.: 2 ♂♂ (MNHN-B 2931). — Abu Lat I., "Calypso", 1952: 4 ♂♂ (1 feminized), 2 ♀♀ (MNHN-B 13924), 1 ♂, 1 ♀ (MNHN-B 13926), 1 ♂ (MNHN-B 13927). — Port Sudan, August-September 1978, H. Emberton coll.: 1 ♂, 2 ♀♀ (RMNH D 47242).

Somalia, Gesiza, M. Vannini coll., November-December 1976: 1 ♂ (RMNH D 32163).

Seychelles, Praslin I., baie Ste Anne, 19.II.1972, A. J. Bruce coll.: 4 ♂♂, 4 ♀♀ (MNHN-B 8266). — Reves 2 Expedition, stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 1 ♀ (MNHN-B 20654). — Mahé, cap Maçons/anse des Forbans, NIOP-E Tyro Expedition, stn 612, 4°46'S - 55°31'E, reef flat, under rocks, 12.XII.1992, C. Franssen coll.: 2 ♀♀ (RMNH D 47239); reef flat and slope to 5 m, *Pocillopora verrucosa*: 2 ♂♂ (RMNH D 47240); île Desnœufs, stn 783, 6°12'S - 53°02'E, outer reef slope, 2.I.1993: 1 ♀ (RMNH D 47241); St. François Atoll, stn 792, 7°05'S - 52°44'E, outer reef slope to 27 m, 5-6.I.1993: 1 ♂, 1 ♀ (RMNH D 47242).

Aldabra, "Calypso", 1954: 1 ♂, 1 ♀ (MNHN-B 14031).

Farquhar Is., 26.II.1972, A. J. Bruce coll.: 1 ♂, 2 ♀♀ (MNHN-B 8265).

Saya de Malha Bank, "Odyssey", cr. 33, 12-13 m, 9.VI.1984: 2 ♂♂, 1 juv. (ZMMU).

Îles Glorieuses, 16.IX.1958, A. Crosnier coll.: 1 ♂ (MNHN-B 8264).

Mozambique, Coconut Bay, 17.V.1973: 1 ♂, 2 ♀♀ (SAM A43237).

La Réunion, La Saline, outer reef slope, 5 m, S. Ribes coll.: 1 ♂ (MNHN-B 8267); 5 m: 1 ♂ (MNHN-B 13325), 1 ♂, 1 ♀ (MNHN-B 13326), 1 ♂, 3 ♀♀ (MNHN-B 13328); 20 m: 1 ♂, 1 ♀ (MNHN-B 13329); 5 m, *P. cydousis*: 1 ♂, 1 ♀ (MNHN-B 13324); 5 m, *Sylophora*: 2 ♂♂, 1 ♀ (MNHN-B 13327); 5 m: 2 ♂♂, 3 ♀♀ (MNHN-B 10). — 1982, C. Vadon coll.: 1 ♂, 1 ♀ (MNHN-B 9746); 1 ♂, 1 ♀ (MNHN-B 9747); *P. verrucosa*, 2 ♀♀ (MNHN-B 9748).

Mauritius, Port Louis, 1913, P. Carié coll.: 1 ♂ (MNHN-B 16908); récif du Grand Port, 1913: 1 ♂ (MNHN-B 16907), 1 ♂ (MNHN-B 25361); Île Chaland, October 1911: 1 ♂ (MNHN-B 16909).

Chagos Archipelago, Salomon Is, Percy Sladen Trust Expedition, 1905: 1 ♂, 1 ♀ (USNM 41337). — Diego Garcia, "Vitiaz", cr. 35, 1.5 m, 12.X.1962: 1 ♂ (ZMMU Ma-2206). — Speakers Bank, "Odyssey", cr. 33, 5°3.3'S - 72°15.2'E, 10-15 m, 18-21.VI.1984: 3 ♂♂, 6 ♀♀ (ZMMU).

Cocos (Keeling) Is., 1941, C. A. Gibson-Hill coll.: 1 ♂, 2 ♀♀ (ZRC 1965.11.22.77-79), 3 ♂♂, 3 ♀♀ (ZRC 1970.7.23-25).

Christmas I., 1940, C. A. Gibson-Hill coll.: 1 ♂, 1 ♀ (ZRC 1970.7.13.74).

DISTRIBUTION. — Throughout the Indo-West Pacific and eastern Pacific regions except the Persian Gulf.

Trapezia ferruginea Latreille, 1828

Trapezia ferruginea Latreille, 1828: 695 (Red Sea). — Heller 1861a: 13 (Red Sea); 1861b: 348, 349, pl. 4, fig. 40 (Red Sea). — Coulon 1864: 569 (Red

Sea). — Paulson 1875: 7, 52, 57 (Red Sea). — Miers 1878: 407 (Red Sea, Mauritius); 1884b: 536 (Seychelles, Sri Lanka). — De Man 1880: 178 (Red Sea); 1881: 94 (Red Sea). — Alcock 1898: 220 (Sri Lanka, Andaman Is, Nicobar Is). — Nobili 1901: 15 (Red Sea); 1905: 10 (Tanzania); 1906a: 143 (Red Sea); 1906b: 293 (Red Sea). — Calman 1909: 705 (Christmas I.). — Lenz 1910: 553 (Europa I.). — Stebbing 1910: 304 (South Africa). — Balss 1924: 13 (Red Sea). — Pesta 1928: 72 (Red Sea). — Chen 1933: 109 (Sri Lanka). — Ramadan 1936: 35 (Red Sea). — Tweedie 1950: 126 (part) (Cocos [Keeling] Is). — Sankarankutty 1961: 130 (Laccadive Is); 1962: 147 (Andaman Is); 1966b: 51 (Seychelles, Maldives). — Michel 1964: 31 (Mauritius). — Garth 1971: 188 (Maldives); 1974: 205 (Maldives, Sri Lanka); 1984: 120 (Seychelles). — Serène 1971: figs 27, 29, 31, 33 (Mauritius); 1984: 273, fig. 180, pl. 38C (Seychelles, Comoro Is, Madagascar, Îles Glorieuses, La Réunion). — Edwards & Emberton 1980: 237 (Red Sea). — Tsareva 1980: 118 (Western Australia). — Galil 1988b: 164, fig. 3 (Red Sea). — Castro 1996: 540, fig. 3 (Red Sea, Seychelles, Comoro Is, Madagascar, La Réunion, Mauritius, Maldives).

Trapezia coerulesa Rüppell, 1830: 27 (part) (Red Sea).

?*Cancer cymodoce* — Rüppell 1830: 27 (Red Sea).

Trapezia cymodoce — Heller 1861a: 13 (Red Sea); 1861b: 348, 352 (Red Sea); 1865: 25, 256, 261 (Nicobar Is). — Hilgendorf 1869: 76, pl. 2, fig. 5 (part) (Zanzibar). — Laurie 1915: 460 (part) (Red Sea). Not *T. cymodoce* (Herbst, 1801).

Trapezia ferruginea var. *typica* — Borradaile 1902: 264, figs 41F (as *T. ferruginea*), 42B (Maldives).

Trapezia cymodoce ferruginea — Rathbun 1911: 234 (part) (Seychelles, Chagos Archip.).

Trapezia bidentata Klunzinger 1913: 307, pl. 7, fig. 12 (part) (Red Sea).

Trapezia ferruginea forme *typica* — Bouvier 1915: 272 (Mauritius).

?*Trapezia ferruginea* forme *dentata* — Bouvier 1915: 272 (part) (Mauritius).

Trapezia cymodoce var. *edentula* Laurie, 1915: 461 (Red Sea).

Trapezia guttata — Guinot 1962a: 240 (part) (Maldives). Not *T. guttata* Rüppell, 1830.

MATERIAL EXAMINED. — **Red Sea.** No location: Beaudouin coll.: 1 ♂ (MNHN-B 2947); Clot Bay coll.: 1 ♂ (MNHN-B 2940 part); Quartin, Dillon & G. Petit coll.: 2 ♀♀ (MNHN-B 4343). — Tor [= El Tur], 1826, E. Rüppell coll.: 1 ♂, 1 ♀ syntypes of *Trapezia coerulesa* Rüppell (SMF 11759). — The Brothers Is, 1901, J. Bonnier & C. Pérez coll.: 1 ♂ (MNHN-B 16544). — Jiddah, M. Botta coll.: 2 ♂♂ (MNHN-B 2941). — Hofun, 1929, E. Ninni coll.:

1 ♀ (MNHN-B 23057). — Assab, Issel & Beccari coll.: 1 ♀ (MNHN-B 16522). — "Calypso", 1952: 1 ♀ (MNHN-B 16523); Abu Lar I.: 7 ♂♂ (1 feminized), 4 ♀♀ (MNHN-B 13925), 6 ♂♂, 8 ♀♀ (MNHN-B 23056); Marmar, 19.J.1952: 1 ♂, 1 ♀ (MNHN-B 16518). — Port Sudan, August-September 1978, H. Emberton coll.: 2 ♂♂, 2 ♀♀ (RMNH D 47314).

Somalia. Gesira, November-December 1976, M. Vannini coll.: 1 ♂ (RMNH D 32163).

Kenya. Ras Iwatine, 4°01'S - 39°44'E, 1 m, *Stylophora*, 27.II.1971, A. J. Bruce coll.: 5 ♂♂, 8 ♀♀, 1 juv. (BMNH), 4 ♂♂, 3 ♀♀ (BMNH).

Tanzania. Zanzibar, L. Rousseau coll.: 1 ♀ (MNHN-B 2935 part). — Zanzibar, Tutia Reef, 28.II.1971, A. J. Bruce coll.: 1 ♂, 1 ♀ (BMNH).

Seychelles. Praslin I., baie Ste Anne, 19.II.1972, A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 8236), 4 ♀♀, 1 ♂ (MNHN-B 8945); Remire Reef, 12.II.1972: 2 ♂♂, 3 ♀♀ (MNHN-B 8944). — Reves 2 Expedition, stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 2 ♂♂, 5 ♀♀ (MNHN-B 11627), 2 ♂♂ (MNHN-B 12806). — Mahé, anse Nord d'Est, NIOP-E Tyro Expedition, stn 601, 4°34'S - 55°28'E, reef flat, 3 m, 5.XII.1992, C. Fransen coll.: 1 ♂ (RMNH D 47243); Mahé, cap Maçons/anse des Forbans, stn 612, 4°46'S - 55°31'E, reef flat and slope to 5 m, *Pocilloporum verrucosum*, 12.XII.1992: 2 ♂♂, 1 ♀ (RMNH D 47244); north-east of Aride I., stn 714, 4°10'S - 55°44'E, 55 m, 19.XII.1992: 1 ♂, 1 ♀ (RMNH D 47245); St. François Atoll, stn 792, 7°05'S - 52°44'E, outer reef slope to 27 m, 5-6.I.1993: 5 ♂♂, 4 ♀♀ (RMNH D 47246); *P. cydoniae*: 1 ♂, 1 ♀ (RMNH D 47247).

Aldabra. "Calypso", 1954: 3 ♂♂, 1 ♀, 2 juv. (MNHN-B 14029).

Astove I. *Stylophora*, 27.II.1972, A. J. Bruce coll.: 4 ♀♀, 1 ♂ (MNHN-B 8942).

Farquhar Is. 26.II.1972, A. J. Bruce coll.: 4 ♂♂, 3 ♀♀ (MNHN-B 8235).

Saya de Malha Bank. "Odissey", cr. 33, 12-13 m, 9.VI.1984: 5 ♂♂, 7 ♀♀ (ZMMU Ma-4410).

Comoro Is. Mayotte, 10 m, September 1959, A. Crosnier coll.: 1 ♀ (MNHN-B 8234).

Îles Glorieuses. 16.IX.1958, A. Crosnier coll.: 2 ♂♂, 2 ♀♀ (MNHN-B 8233). — 16.IX.1958, J. Millor & A. Crosnier coll.: 1 ♀ (MNHN-B 23049).

Mozambique. Jangamo, July 1968: 1 ♂, 1 ♀ (SAM A13514). — Coconut Bay, 17.V.1973: 3 ♂♂, 4 ♀♀, 1 juv. (SAM A43238).

South Africa. KwaZulu-Natal, Aliwal Shoal, 24 m, June 1980: 1 ♂ (SAM A43239).

Madagascar. No location: 1 ♀ (MNHN-B 23045); De Lartigues coll.: 1 ♀ (MNHN-B 16520). — Nosy Bé, July 1958, M. Chavane coll.: 1 ♂ (MNHN-B 8231). — Tuléar, R. Plante & A. Crosnier coll.: 1 ♂, 1 ♀ (MNHN-B 8232).

La Réunion. La Saline, outer reef slope, 5 m, S. Ribes coll.: 2 ♂♂, 3 ♀♀ (MNHN-B 8237), 5 m: 2 ♂♂, 1 ♀ (MNHN-B 16090); 10 m: 1 ♂, 1 ♀ (MNHN-

B 16091); 20 m: 2 ♂♂, 1 ♀ (MNHN-B 16089); 5 m, *Stylophora murdax*, 31.XII.1976: 1 ♀ (MHNR-B 11); 10 m, *P. damicornis*, 23.VIII.1977: 1 ♀ (MHNR-B 12), *P. verrucosa*, 1 ♂ (MHNR-B 13); reef flat, 30.VII.1977: 1 ♂, 1 ♀ (MNHN-B 16088). — La Saline, "Marion Dufresne", 13 m, 16.IX.1982: 1 ♂ (MNHN-B 16548). — Saint Gilles, reef flat, 16.IX.1982, M. de Saint Laurent coll.: 1 ♂ (MHNR-B 14). — La Saline, outer reef slope, 20 m, *P. brevicornis*, coll., 8.IX.1997, P. Castro & S. Ribes: 1 ♂ (MHNR-B 42); Saint Gilles, reef flat, 1 m, *P. verrucosa*, 11.IX.1996: 1 ♂, 1 ♀ (MHNR-B 43); 1 ♂, 1 ♀ (MHNR-B 44), 1 ♀ (MHNR-B 45).

Mauritius. 1 ♀ (MNHN-B 2946). — 1887, M. Marie coll.: 1 ♀ (MNHN-B 16519). — P. Carié coll.: 3 ♂♂ (MNHN-B 16516); 1913: 1 ♀ (MNHN-B 23064); récif du Grand Port, 1913: 5 ♂♂, 9 ♀♀ (MNHN-B 25359); Le Chaland, 1913: 1 ♂, 1 ♀ (MNHN-B 16521), 4 ♂♂, 2 ♀♀, 2 juv. (MNHN-B 16524).

Maldives. Addu Atoll, "Xarifa", 9 m, 30.12.1957, S. Gerlach coll.: 1 ♂ (MNHN-B 16517). — Miladummadulu Atoll, 27.III.1964, R. Robertson coll.: 1 ♀ (LACM).

Chagos Archipelago. Speakers Bank, "Odissey", cr. 33, 5°03.3'S - 72°15.2'E, 10-15 m, 18-21.VI.1984: 14 ♂♂, 14 ♀♀ (ZMMU Ma-4419).

Sri Lanka. Galle, 5.III.1964, J. S. Garth coll.: 1 ♂, 1 ♀ (LACM).

Cocos (Keeling) Is. 1941, C. A. Gibson-Hill coll.: 2 ♂♂, 7 ♀♀ (ZRC 1965.11.22.100-109); 5 ♂♂, 4 ♀♀ (ZRC 1970.7.13.51-52).

Christmas I. 1940, C. A. Gibson-Hill coll.: 1 ♀ (ZRC 1970.7.13.73).

DISTRIBUTION. — Throughout the Indo-West Pacific and eastern Pacific regions except the Persian Gulf.

REMARKS

Live individuals from La Réunion where darker than those from western Pacific Ocean populations. The dorsal surface of the carapace varied from purplish orange to dark orange; the edges were orange.

Trapezia flavopunctata

Eydoux et Souleyet, 1842

Trapezia flavopunctata Eydoux et Souleyet, 1842: 230, pl. 2, fig. 3.

Trapezia flavopunctata — Miers 1884a: 11 (Mauritius). — Serène 1984: 276, fig. 183, pl. 42A (La Réunion, Mauritius).

Trapezia ferruginea forme *areolata* — Bouvier 1915: 272 (Mauritius). Not *T. areolata* Dana, 1852.

Trapezia rufopunctata forme *flavopunctata* — Bouvier 1915: 273 (Mauritius).

Trapezia maculata — Gravier 1920: 470 (part) (Madagascar).

Trapezia rufopunctata flavopunctata — Michel 1964: 31 (Mauritius).

Trapezia ferruginea areolata — Michel 1964: 31 (Mauritius). Not *T. areolata* Dana, 1852.

Trapezia tigrina — Serène 1971: 133, fig. 4 (Sri Lanka?). Not *T. tigrina* Eydoux et Souleyet, 1847.

MATERIAL EXAMINED. — **Madagascar.** Diego Suarez, May 1919, R. Decary coll.: 1 ♀ (MNHN-B 23079).

La Réunion. 5 m, *Pacilloporia eydouxii*, S. Ribes coll.: 1 ♂ (MNHN-B 8315); 1976: 14 ♂♂, 4 ♀♀ (MNHN-B 16092); 10 m, *P. verrucosa*, 30.IX.1976: 1 ♀ (MHNR-B 15); 10 m, 24.VII.1977: 1 ♂, 1 ♀ (MNHN-B 21495); La Saline, 15 m, *P. verrucosa*: 1 ♂, 1 ♀ (MNHN-B 8248). — La Saline, reef flat, 16.IX.1982, M. de Saint Laurent coll.: 1 ♂ (MNHN-B 16546). — La Saline, 1 m, *P. verrucosa*, 11.IX.1996, P. Castro & S. Ribes coll.: 2 ♂♂, 4 ♀♀ (MHNR-B 16).

Mauritius. 1 ♂, 1 ♀ (MNHN-B 23080). — M. Marie coll.: 1 ♂ (MNHN-B 23092). — P. Carié coll.: 1 ♀ (MNHN-B 2949); 1910, 1 ♀ (MNHN-B 25336); 1913, 9 ♂♂ (MNHN-B 8249), 2 ♂♂ (MNHN-B 9781), 5 ♂♂, 15 ♀♀ (MNHN-B 16540), 4 ♂♂, 1 ♀ (MNHN-B 23061), 1 ♂, 1 ♀ (MNHN-B 23073), 10 ♀♀, 7 ♂♂ (MNHN-B 23081), 5 ♀♀, 1 ♂ (MNHN-B 25337); 1914, 30 ♂♂, 30 ♀♀ (MNHN-B 16539), 2 ♂♂, 2 ♀♀ (MNHN-B 23042); Port Louis, 1 ♀ (MNHN-B 2948), 2 ♂♂, 1 ♀ (MNHN-B 25349); récif du Grand Port, 1913, 1 ♀ (MNHN-B 25362).

Chagos Archipelago. Diego Garcia, 7°14'47"S - 72°23'02"E, 1-3 m, 16.VII.1967: 1 ♀ (LACM).

DISTRIBUTION. — Known only from the southwestern Indian Ocean to most of the Pacific Ocean, except the eastern Pacific region.

Trapezia formosa Smith, 1869

Trapezia formosa Smith, 1869: 286.

Trapezia digitalis var. *formosa* — Borradaile 1902: 265 (Maldives).

Trapezia ferruginea — Tweedie 1950: 126 (part) (Cocos [Keeling] Is). Not *T. ferruginea* Latreille, 1828.

Trapezia formosa — Garth 1971: 188 (Maldives). — Castro 1998b: 178 (Kenya, Seychelles, Aldabra, Mozambique, îles Glorieuses, La Réunion, Cocos [Keeling] Is).

Trapezia bella – Serène 1984: 278, fig. 187, pl. 38F (La Réunion). Not *T. bella* Dana, 1852.

MATERIAL EXAMINED. — **Kenya.** Ras Iwatine, 4°01'S - 39°44'E, 1 m, *Stylophora*, 27.II.1971, A. J. Bruce coll.: 1 ♂, 1 ♀ (BMNH); Tiwi, 4°15'S - 38°36.1'E, 2 m, 1.III.1971: 1 ♀ (BMNH). — Mombasa Is, *Pocillopora* under stones, 14.III.1972, N. Bruce coll.: 1 ♂ (MNHN-B 25292).

Seychelles. Praslin I., small *Pocillopora*, 17.II.1972, A. J. Bruce coll.: 5 ♂♂, 6 ♀♀ (MNHN-B 25289); Remire Reef, 12.II.1972: 1 ♂, 1 ♀ (MNHN-B 25288). — Reves 2 Expedition, stn 27, 4°55.6'N - 54°58.5'E, 52 m, 8.IX.1980: 1 ♂ (MNHN-B 25290). — Mahé, cap Maçons/anse des Forbans, NIOP-E Tyro Expedition, stn 612, 4°46'S - 55°31'E, reef flat and slope to 5 m, *P. verrucosa*, 12.XII.1992, C. Franssen coll.: 2 ♂♂ (RMNH D 47110); Aride I., stn 711, 4°13'S - 55°40'E, *P. verrucosa*, 18-19.XII.1992: 1 ♂ (RMNH D 47109); St. François Atoll, stn 792, 7°05'S - 52°44'E, outer reef slope to 27 m, *P. eydouxi*, 5-6.I.1993: 1 ♂, 1 ♀ (RMNH D 47107), 1 ♂ (RMNH D 47111).

Aldabra, 1 ♂, 1 ♀ (MNHN-B 14034).

Îles Glorieuses, 16.IX.1958, A. Crosnier & J. Millot coll.: 2 ♂♂, 1 ♀ (MNHN-B 25291).

Mozambique. Coconut Bay, 17.V.1973: 1 ♀ (SAM A43242).

La Réunion. La Saline, outer reef slope, 5 m, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 23100); 5 m, *Stylophora*: 3 ♂♂, 2 ♀♀ (MNHN-B 23096); 5 m, *P. verrucosa*: 1 ♂, 1 ♀ (MNHN-B 23097); 10 m, *P. verrucosa*: 1 ♂, 1 ♀ (MHNR-B 25); 15 m: 2 ♂♂, 2 ♀♀ (MNHN-B 23098), 1 ♂ (MNHN-B 23099); 5 m, *P. verrucosa*: 1 ♂, 1 ♀ (MNHN-B 8345). — Saint Gilles, reef flat, 17.IX.1982, M. de Saint Laurent coll.: 1 ♂ (MHNR-B 26).

Cocos (Keeling) Is. 1941, C. A. Gibson-Hill coll.: 1 ♂, 2 ♀♀ (ZRC 1997.777).

DISTRIBUTION. — Recorded across the Indo-West Pacific and eastern Pacific regions except the Red Sea, Persian Gulf, French Polynesia and the Hawaiian Islands.

REMARKS

Colour variations throughout the geographic distribution are discussed in the revision of the species by Castro (1998b).

Trapezia guttata Rüppell, 1830

Trapezia guttata Rüppell, 1830: 27 (Red Sea). — Heller 1861a: 14 (Red Sea); 1861b: 348, 351 (Red Sea). — Kossmann 1877: 44 (Red Sea). — De Man 1880: 176 (Red Sea); 1881: 94 (Red Sea). — Richters

1880: 152 (Seychelles). — Lenz 1905: 350, 390 (Tanzania, Aldabra). — Nobili 1906b: 293 (Red Sea). — Gurney 1938: 76, pl. 2, figs 19-22 (Red Sea). — Tweedie 1950: 126 (Cocos [Keeling] Is). — Stella 1953: 64 (Red Sea). — Guinot 1962a: 240 (part) (Red Sea, Maldives). — Michel 1964: 31 (Mauritius). — Kensley 1970: 104 (Mozambique). — Garth 1971: 188 (Maldives); 1984: 120 (Seychelles). — Serène 1977: 50 (Seychelles); 1984: 271, fig. 178, pl. 38A (Seychelles, Madagascar, La Réunion). — Edwards & Emberton 1980: 237 (Red Sea). — Tsareva 1980: 119 (Western Australia). — Türkay 1981: 59 (Seychelles). — Galil 1988b: 166, fig. 4 (Red Sea). — Morgan 1990: 52 (Western Australia). — Kalk 1995: 228 (Mozambique).

Trapezia ferruginea – Milne Edwards 1868: 71 (part) (Madagascar).

Trapezia ferruginea var. *guttata* – Paulson 1875: 7, 54, 57 (Red Sea). — Borradaile 1902: 265 (Maldives). — Doflein 1904: 104 (Seychelles). — Ramadan 1936: 35 (Red Sea).

Trapezia cymadoce ferruginea – Rathbun 1911: 234 (part) (Chagos Archip.). Not *T. ferruginea* Latteille, 1828.

? *Trapezia ferruginea* var. *ceylonica* Chen 1933: 109, fig. 54 (Sri Lanka).

Trapezia bidentata Klunzinger, 1913: 307 (part) (Red Sea).

Trapezia sp. – Fourmanoir 1954: 13 (Madagascar).

MATERIAL EXAMINED. — **Red Sea.** 1822-1827, E. Rüppell coll.: 1 ♂ syntype (RMNH D 42320). — Eilat, *Stylophora*: 1 ♂, 1 ♀ (MNHN-B 23055). — "Calypso", 1952: 1 ♂ (MNHN-B 16916), 1 ♂, 1 ♀ (MNHN-B 16914); stn 5: 2 ♂♂, 1 ♀ (MNHN-B 23065); Abu Lat I.: 1 ♀ (MNHN-B 16531). — Sarso I., "Xarifa", 2-3 m, 11.XI.1957, S. Gerlach coll.: 1 ♂, 4 ♀♀ (MNHN-B 16917); *Seriatopora*, 16-21.XI.1957: 2 ♂♂, 1 ♀ (MNHN-B 16918). — Port Sudan, August-September 1978, H. Emberton coll.: 1 ♂, 1 ♀ (RMNH D 47319).

Seychelles. Mahé, Port Victoria, *Stylophora erythraea*, 16.V.1966, A. J. Bruce coll.: 1 ♂, 1 ♀ (LACM); Praslin I., *Seriatopora hystrix*, 20.II.1972: 4 ♂♂, 4 ♀♀ (MNHN-B 8223).

Aldabra, Main Channel, Royal Society Expedition, 10.XI.1967, J. D. Taylor coll.: 1 ♀ (BMNH).

Saya de Malha Bank. "Odyssey", cr. 33, 12-13 m, 9.VI.1984: 3 ♂♂, 5 ♀♀ (ZMMU).

Comoro Is. Mayotte, 1903, M. Marie coll.: 1 ♂, 1 ♀ (MNHN-B 23071 bis).

Madagascar. Nosy Bé, September 1961, A. Crosnier coll.: 1 ♂, 1 ♀ (MNHN-B 23062); 10 m, January 1962: 4 ♂♂, 2 ♀♀ (MNHN-B 8221). — Tuléar, G. Grandidier coll.: 1 ♀ (MNHN-B 4344 part). — Tuléar, G. Petit coll.: 1 ♂, 1 ♀ (MNHN-B 23095); Tamatave: 1 ♂, 1 ♀ (MNHN-B 16892). — Tamatave,

J. Millot coll.: 1 ♂, 4 ♀♀ (MNHN-B 16887), 2 ♂♂, 1 ♀ (MNHN-B 23076).

La Réunion. *Pocillopora damicornis*, November 1977, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 8222); 1977: 1 ♂, 1 ♀ (MNHN-B 23063); outer reef slope, 40 m: 1 ♂, 1 ♀, 1 megalopa (MHN-B 17). — La Saline, reef flat, 1 m, *P. damicornis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♂, 2 ♀♀ (MHN-B 18); 9.IX.1996: 2 ♂♂, 6 ♀♀ (MHN-B 19); Saint Gilles, reef flat, 1 m, *P. damicornis* & *P. verrucosa*, 11.IX.1996: 2 ♂♂, 1 ♀ (MHN-B 20).

Mauritius. 1921, P. Carié coll.: 1 ♀ (MNHN-B 16526).

Maldives. Addu Atoll, "Xarifa", *Seriatopora*, 29.XII.1957, S. Gerlach coll.: 1 ♂, 3 ♀♀ (MNHN-B 13946), 5 ♂♂, 3 ♀♀ (MNHN-B 16915).

Chagos Archipelago. Salomon Is, Percy Sladen Trust Expedition, 20-28 m, 15.VI.1905: 1 ♂, 1 ♀ (USNM 41328); Egmont Is: 2 ♀♀ (USNM 41322). — Speakers Bank, "Odyssey", cr. 33, 5°33'S - 72°15.2'E, 10-15 m, 18-21.VI.1984: 2 ♂♂, 3 ♀♀ (ZMMU).

Thailand (Andaman Sea). Phuket I., Tang Khen, 5.X.1990, T. Komai coll.: 1 ♂, 1 ♀ (CBM ZC 2396); Cape Phanwa, 9.X.1990: 1 ♂ (CBM ZC 2400).

Indonesia (Indian Ocean). Simeulue I., 2°27'N - 96°24'E, March 1913, E. Jacobson coll.: 1 ♂, 1 ♀ (RMNH D 2101), 1 ♀ (RMNH D 47172). — Batu Is, Pulo Bai, "Le Vega", stn 101, 0°1'S - 98°31'E, 25.XI.1963: 1 ♀ (USNM). — Padang, August 1963: 1 ♂, 1 ♀ (MNHN-B 13289).

Cocos (Keeling) Is. 1941, C. A. Gibson-Hill coll.: 10 ♂♂, 6 ♀♀ (ZRC 1965.11.22.110-119), 2 ♂♂, 2 ♀♀ (ZRC 1970.7.13.3-12).

Christmas I. 1940, C. A. Gibson-Hill coll.: 1 ♂, 4 ♀♀ (ZRC 1970.7.13.67-72).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Persian Gulf and the Hawaiian Islands.

Trapezia lutea Castro, 1997

Trapezia lutea Castro, 1997a: 84, figs 2C, 2D, 3A-C, pl. 2C, pl. 5A (Kenya, Seychelles, Aldabra, îles Glorieuses, Madagascar, La Réunion, Mauritius, Maldives, Cocos [Keeling] Is, Western Australia).

?*Trapezia cymodoce* - Hilgendorf 1869: 76, pl. 2, fig. 5 (part) (Zanzibar). — Borradaile 1902: 265 (part) (Maldives).

Trapezia cymodoce - Laurie 1906: 410 (part) (Sri Lanka). — Rathbun 1911: 234 (part) (Chagos Archip.). — Bouvier 1915: 272 (part) (Mauritius). — Chen 1933: 106 (Sri Lanka). — Barnard 1950: 276 (part) (South Africa). — Tweedie 1950: 126 (part) (Cocos [Keeling] Is). — Garth 1971: 188 (part) (Maldives); 1974: 205 (part) (Maldives, Sri Lanka); 1984: 120 (part) (Seychelles). — Serène 1984: 272

(part) (Seychelles). Not *T. cymodoce* (Herbst, 1801).

MATERIAL EXAMINED. — **Kenya.** Ras Iwatine, 4°01'S - 39°44'E, 1 m, 26.II.1971, A. J. Bruce coll.: 1 ♂, 1 ♀ (BMNH), 1 ♂, 2 ♀♀ (BMNH); Mombasa I., 12.II.1972: 1 ♀ (MNHN-B 13337).

Seychelles. Mahé, 17.VI.1966, A. J. Bruce coll.: 2 ♂♂, 3 ♀♀ (LACM); Praslin I., 7 m, 17.II.1972: 3 ♂♂, 4 ♀♀ (MNHN-B 13335); baie Ste Anne: 1 ♂ (MNHN-B 13330), 1 ♀ (MNHN-B 25233); baie Curieuse, *Seriatopora hystrix*, 20.II.1972: 1 ♂, 2 ♀♀ (MNHN-B 23047); Mahé, Port Victoria, 15.II.1972: 1 ♂, 1 ♀ (MNHN-B 25232); Remire Reef, *Stylophora*, 12.II.1972: 1 ♂, 1 ♀ (MNHN-B 13336). — Reves 2 Expedition, stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 2 ♂♂, 3 ♀♀ (MNHN-B 11628). — Mahé, anse Nord d'Est, NIOP-E Tyro Expedition, stn 601, 4°34'S - 55°28'E, reef flat, 3 m, 5.XII.1992, C. Franssen coll.: 1 ♀ (RMNH D 47248); Mahé, south of Pic au Sel and île Souris, stn 603, 4°44'S - 55°32'E, reef flat, 2 m, 7.XII.1992: 1 ♂, 1 ♀ (RMNH D 47249); Mahé, North East Point, stn 604, 4°35'S - 55°28'E, reef flat and slope, 2-4 m, 8.XII.1992: 1 ♂, 2 ♀♀ (RMNH D 47250); Mahé, Port Launay National Park, stn 606, 4°38'S - 55°23'E, 3-6 m, 10.XII.1992: 1 ♂, 1 ♀ (RMNH D 47691); Mahé, cap Maçons/anse des Forbans, stn 612, 4°46'S - 55°31'E, reef flat, 12.XII.1992: 2 ♂♂, 2 ♀♀ (RMNH D 47252), reef flat and slope to 5 m, *Pocillopora verrucosa*: 1 ♂, 1 ♀ (RMNH D 47251); Aride I., stn 711, 4°13'S - 55°40'E, 18-19.XII.1992: 2 ♀♀ (RMNH D 47254); Poivre Atoll, stn 767, 5°44'S - 53°18'E, *P. damicornis*, 29-31.XII.1992: 1 ♂, 1 ♀ (RMNH D 47255); St. François Atoll, stn 792, 7°05'S - 52°44'E, outer slope to 27 m, transect 20, 5-6.I.1993: 1 ♂, 1 ♀ (RMNH D 47256), *P. cyclonxi*, 1 ♂, 1 ♀ (RMNH D 47257); Mahé, îlot de l'Islette, stn 615, 4°40'S - 55°25'E, 2-5 m, 13.XII.1992, B. Hoeksema coll.: 1 ♂ (RMNH D 47253).

Aldabra. "Calypso", 1954: 2 ♂♂, 1 ♀ (MNHN-B 23060).

Astove I. 12 m, 27.II.1972, A. J. Bruce coll.: 2 ♂♂, 1 ♀ (MNHN-B 13332).

Farquhar Is. 12 m, 25.II.1972, A. J. Bruce coll.: 2 ♂♂, 3 ♀♀ (MNHN-B 13334).

Saya de Malha Bank. "Odyssey", cr. 33, 9.VI.1984: 2 ♂♂, 3 ♀♀ (ZMMU). — "Vitiáz II", cr. 17, 20 m: 1 ♂ (ZMMU Ma-4472).

Îles Glorieuses. 10 m, January 1973, A. Crosnier coll.: 1 ♂, 3 ♀♀ (MNHN-B 23046).

Mozambique. Coconut Bay, 17.V.1973: 2 ♂♂, 1 ♀, 1 juv. (SAM A43246). — Magaruque, 23.V.1973: 1 ♂, 1 ♀, 1 juv. (SAM A43244); 25.V.1973, 1 ♂, 3 ♀♀ (SAM A43245).

South Africa. KwaZulu-Natal, Kosi Bay: 1 ♀ (BMNH 1917.6.19.47). — KwaZulu-Natal, Mtwalume, 26.XII.1938: 1 ♂, 1 ♀ (SAM A43247). — KwaZulu-Natal, Umpangazi, 25.IV.1967: 1 ♂, 4 ♀♀ (SAM A43248).

Madagascar. Tuléar, 1921, G. Petit coll.: 2 ♂♂, 2 ♀♀ (MNHN-B 23085). — Tamatave, 1880, De Lartigue coll.: 1 ♀ (MNHN-B 23089). — Tamatave, J. Millot coll.: 1 ♂ (MNHN-B 23086). — Port Dauphin; 2 ♂♂, 1 ♀ (MNHN-B 13331).

La Réunion. La Saline, outer reef slope, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 25247); 5 m: 1 ♀ (MNHN-B 8941); 10 m: 1 ♀ (MNHN-B 8943); 30 m, 18.II.1976: 1 ♂, 1 ♀ (MNHN-B 8939); 15 m, *P. verrucosa*, 25.IX.1976: 1 ♀ (MHNR-B 21); 10 m, *P. verrucosa*, 24.VIII.1977: 1 ♂ (MHNR-B 22), 1 ♀ (MHNR-B 23). La Saline, 16.IX.1982, M. de Saint Laurent coll.: 1 ♂ (MNHN-B 16547). — La Saline, reef flat, 1 m, *P. damnicornis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♂ (MHNR-B 46); Saint Gilles, reef flat, 1 m, *P. verrucosa*, 11.IX.1996: 1 ♀ (MHNR-B 47), 1 ♀ (MHNR-B 48), 1 ♀ (MHNR-B 49), 1 ♂, 1 ♀ (MHNR-B 50), 1 ♂, 1 ♀ (MHNR-B 51), 1 ♂ (MHNR-B 52).

Mauritius. 1913, P. Carié coll.: 1 ♂, 1 ♀ (MNHN-B 16882), 1 ♀ (MNHN-B 23083), 15 ♂♂, 18 ♀♀ (MNHN-B 25380); 1914: 12 ♂♂, 20 ♀♀ (MNHN-B 23041); récif du Grand Port, 1913: 7 ♂♂, 5 ♀♀ (MNHN-B 23039), 21 ♂♂, 20 ♀♀ (MNHN-B 25360); Le Chaland, 28.IX.1912: 2 ♂♂, 7 ♀♀ (MNHN-B 25351); 1913: 2 ♂♂, 2 ♀♀ (MNHN-B 25344).

Maldives. Addu Atoll, "Xarifa", Seriatopora, 15 m, January 1958, S. Gerlach coll.: 2 ♂♂, 1 ♀ (MNHN-B 23044). — Miladummadulu Atoll, *Acropora*, 27.II.1964, J. S. Garth coll.: 1 ♂, 1 ♀ (LACM); Malé Atoll: 1 ♂, 1 ♀ (LACM); 18.III.1964: 1 ♂, 1 ♀ (LACM), 19.IV.1964: 1 ♂, 1 ♀ (LACM); 21.III.1964: 1 ♂, 1 ♀ (LACM).

Chagos Archipelago. Peros Banhos Is, Coin I., Percy Sladen Trust Expedition, 1905: 1 feminized ♂, 1 ♀ (USNM 41323); Salomon Is, 20-28 m, 15.VI.1905: 1 ♀ (USNM 41321); 7°21'35"S - 72°28'17"E, 0-2 m, 23.VI.1967: 1 ♀ (LACM). — Diego Garcia, "Vitiaz", cr. 35, 12.X.1962: 1 ♂, 1 ♀ (ZMMU Ma-2188). Speakers Bank, 10-15 m, "Odyssey", cr. 33, 18-21.VI.1984: 12 ♂♂, 7 ♀♀ (ZMMU Ma-4412).

Sri Lanka. Galle, 5.III.1964, J. S. Garth coll.: 1 ♀ (LACM).

Cocos (Keeling) Is. 1945, C. A. Gibson-Hill coll.: 4 ♂♂, 6 ♀♀ (ZRC 1965.11.22.136-45). — V. Orr coll.: 2 ♂♂, 6 ♀♀ (LACM). — Flying Fish Cove, 10-15 m, 11.II.1987, G. Morgan coll.: 1 ♀ (WAM 600-87); North Keeling I., 17.II.1989: 1 ♂, 1 ♀ (WAM 701-89). — Home I., L. Marsh coll.: 1 ♂, 1 ♀ (WAM 836-89).

Christmas I. 1940, C. A. Gibson-Hill coll.: 2 ♂♂, 1 ♀ (ZRC 1970.7.13.27-32).

Western Australia. Kendrew I., Dampier Archip., 20.V.1974: 1 ♂, 1 ♀ (WAM 504-86).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Red Sea, Persian Gulf and the Hawaiian Islands.

REMARKS

The species was found in Indian Ocean material that was originally identified as *T. cymodoce*.

The smaller live individuals collected from La Réunion had small black granules throughout the carapace, giving it a darker, almost brown appearance. La Réunion individuals also showed a purple brown spot on the distal edge of the propodus of the walking legs, which has not been observed in western Pacific Ocean populations. As in live individuals from the western Pacific, the tomentum on the chelipeds was either transparent, green or light to dark red brown. A tomentum was also found on the walking legs of some individuals, especially small ones.

Trapezia punctipes Castro, 1997

Trapezia punctipes Castro, 1997a: 87, fig. 4, pl. 2D.

MATERIAL EXAMINED. — **Thailand (Andaman Sea).** Phuket I., Cape Phanwa & Makhm Bay, 25-26.VIII.1980, P. Castro coll.: 3 ♂♂, 3 ♀♀ (colour photographs).

DISTRIBUTION. — Recorded so far from the Andaman Sea, Indonesia (Celebes and Moluccas Islands), Saipan, Belau, eastern Australia and Fiji (see Castro 1999).

Trapezia richtersi Galil et Lewinsohn, 1983

Trapezia sp. — Richters 1880: 152, pl. 16, fig. 13 (Mauritius).

Trapezia richtersi Galil et Lewinsohn, 1983: 160, figs 1-4 (Somalia, Kenya, Seychelles, Aldabra, Mauritius). — Serène 1984: 274, fig. 181, pl. 39E (Seychelles, Mauritius).

Trapezia rufopunctata — Miers 1884b: 536 (part) (Seychelles). Not *T. rufopunctata* (Herbst, 1799).

Trapezia ferruginea var. *intermedia* — Alcock 1898: 220 (part) (Andaman Sea). — Sankarankutty 1962: 148 (Andaman Is). Not *T. intermedia* Miers, 1886.

Trapezia cymodoce intermedia — Rathbun 1911: 235 (Seychelles).

Trapezia rufopunctata forme *typica* — Bouvier 1915: 271 (part) (Mauritius).

Trapezia ferruginea forme *maculata* — Bouvier 1915: 272 (part) (Mauritius).

Trapezia maculata — Gravier 1920: 470 (part) (Madagascar).

Trapezia aff. *danai* – Serène 1971: 136, figs 14B, 15, 16, 21, 22, 24 (part) (Mauritius). – Garth 1974: 205 (Maldives, Sri Lanka).

Trapezia danai – Serène 1977: 51 (Seychelles).

Trapezia intermedia – Türkay 1981: 59 (Mauritius).

?*Trapezia* sp. ("fine-dotted") – Garth 1984: 120 (Seychelles).

MATERIAL EXAMINED. — **Seychelles.** Praslin I., Percy Sladen Trust Expedition, 1905: 1 ♀ (USNM 41331). — Praslin I., baie Ste Anne, 17.II.1972, A. J. Bruce coll.: 1 ♂ (MNHN-B 8244). — Reves 2 Expedition, stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 2 ♀♀ (MNHN-B 11630), 1 ♂ (MNHN-B 20662). — Deroche I., "Akademik Petrovsky", cr. 14, 21-24.XII.1983: 1 ♂ (ZMMU Ma-4479). — Mahé, North East Point, NIOP-E Tyro Expedition, stn 604, 4°35'S - 55°28'E, reef flat and slope, 2-4 m, 8.XII.1992, C. Fransén coll.: 1 ♂, 1 ♀ (RMNH D 47258); Mahé, cap Maçons/anse des Forbans, stn 612, 4°46'S - 55°31'E, reef flat, under rocks, 12.XII.1992: 1 ♂ (RMNH D 47259), reef flat and slope to 5 m, *Pacillopora verrucosa*, 1 ♀ (RMNH D 47260); Platte Atoll, stn 797, 5°49'S - 55°21'E, 12 m, 7.I.1993: 1 ♂, 1 ♀ (RMNH D 47261).

Aldabra. Gros Îlot, Royal Society Expedition, 14.X.1967, J. D. Taylor coll.: 1 ♂, 1 ♀ (BMNH); Passe Dubois, 18.X.1967: 1 ♂, 1 ♀ (BMNH).

Farquhar Is. 15 m, 25.II.1972, A. J. Bruce coll.: 1 ♂ (MNHN-B 8243).

Madagascar. Nosy Komba, 5 m, October 1960, A. Crosnier coll.: 1 ♀ (MNHN-B 16919). — Tamatave, J. Millot coll.: 1 ♂, 2 ♀♀ (MNHN-B 16511), 1 ♂ (MNHN-B 16614). — Diego Suarez, May 1919, R. Decary coll.: 1 ♂, 2 ♀♀ (MNHN-B 23069).

La Réunion. Outer reef slope, 30 m, 5.XI.1976, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 13932); 10 m, 1977: 1 ♂, 1 ♀ (MNHN-B 13928), 1 ♂, 1 ♀ (MNHN-B 13929); 20 m, 1977: 2 ♂♂, 2 ♀♀ (MNHN-B 13931); 40 m, *P. damicornis*, 6.VIII.1977: 1 ♂ (MNHN-B 13934); 10 m, 18.VIII.1977: 1 ♀ (MNHN-B 13930); 30 m, 3.X.1977: 1 ♂, 1 ♀ (MNHN-B 13933); La Saline, 10 m, *P. verrucosa*: 1 ♂ (MHNR-B 4); 5 m: 1 ♂, 1 ♀ (MHNR-B 5); 30 m, *Stylophora mordax*, 14.XII.1976: 1 ♂, 1 ♀ (MHNR-B 6); 15 m, *P. eydouxii*: 2 ♂♂, 1 ♀ (MHNR-B 7). — La Saline, reef flat, 1 m, *P. damicornis*, 7.IX.1996, P. Castro & S. Ribes coll.: 1 ♀ (MHNR-B 1); *P. brevicornis*, 9.IX.1996: 2 ♂♂, 2 ♀♀ (MHNR-B 3); outer reef slope, 20 m, 8.IX.1996: 7 ♂♂, 9 ♀♀ (MHNR-B 2).

Mauritius. 1913, P. Carié coll.: 1 ♂, 1 ♀ (MNHN-B 16610), 1 ♂ (MNHN-B 16611), 2 ♂♂ (MNHN-B 16612), 1 ♂, 1 ♀ (MNHN-B 23040); récif du Grand Port, 1913: 4 ♂♂, 3 ♀♀ (MNHN-B 16613), 5 ♂♂, 3 ♀♀ (MNHN-B 25346), 2 ♂♂, 10 ♀♀ (MNHN-B 25358); Le Chaland, 1913: 1 ♂, 1 ♀

(MNHN-B 23068), 2 ♂♂, 5 ♀♀ (MNHN-B 23093), 8 ♂♂, 13 ♀♀ (MNHN-B 25343).

Thailand (Andaman Sea). Phuket I., Makhamb Bay, 26.VIII.1980, P. Castro coll.: colour photographs. — Phuket I., Cape Phanwa, 20.X.1990, T. Komai coll.: 1 ♂, 1 ♀ (CBM ZC 2248).

DISTRIBUTION. — Known only from the western Indian Ocean (Somalia to Madagascar) to the Andaman Sea.

Trapezia rufopunctata (Herbst, 1799)

Cancer rufopunctatus Herbst, 1799: 54, pl. 47, fig. 6.

Grapsillus maculatus MacLeay, 1838: 67 (South Africa).

Trapezia rufopunctata – Hilgendorf 1869: 75, pl. 2, fig. 3 (part) (Zanzibar). — Miers 1884b: 536 (part) (îles Glorieuses). — Henderson 1893: 336, 366 (India, Sri Lanka). — Ortmann 1894: 54 (Tanzania). — Alcock 1898: 222 (Sri Lanka). — Borradaile 1902: 265 (Maldives). — Calman 1909: 705 (Christmas I.). — Rathbun 1911: 235 (Chagos Archip.). — Chen 1933: 110 (Sri Lanka). — Ward 1942b: 99 (Chagos Archip.). — Barnard 1950: 278 (Mozambique). — Tweedie 1950: 126 (Cocos [Keeling] Is.). — Michel 1964: 31 (Mauritius). — Serène 1977: 51 (Seychelles); 1984: 276, fig. 184, pl. 39A (Seychelles, Comoro Is.). — Galil & Lewinsoln 1985: 209, figs 1-6 (Somalia, Seychelles, îles Glorieuses, Madagascar, Maldives, Sri Lanka, Chagos Archip.). — Kalk 1995: 228 (Mozambique) — Jones 1997: 234, unnumb. fig. (eastern Indian Ocean).

?*Trapezia rufopunctata* – Wedenissow 1894: 413 (Somalia). — Vatova 1943: 22 (Somalia).

Trapezia rufopunctata forme *typica* – Bouvier 1915: 273 (part) (Mauritius).

Trapezia rufopunctata var. *maculata* – Guinot 1962a: 240 (part) (Maldives).

Trapezia aff. *maculata* – Serène 1971: 130, figs 2, 6, 10, 13A, 13B (Maldives, Sri Lanka).

Trapezia maculata – Serène 1984: 277, pl. 39B (Seychelles). — Tsareva, 1980: 119 (Western Australia).

MATERIAL EXAMINED. — **Kenya.** Mombasa, 26.I.1974, J. Wood coll.: 1 ♂ (MNHN-B 16822).

Seychelles. Praslin I., 17.II.1972, A. J. Bruce coll.: 1 ♂, 1 ♀ (MNHN-B 8262); baie Ste Anne, 19.II.1972: 1 ♂, 1 ♀ (MNHN-B 8261). — Reves 2 Expedition, stn 27, 4°55.6'S - 54°58.5'E, 52 m, 8.IX.1980: 2 ♀♀ (MNHN-B 11629). — Mahé, NIOP-E Tyro Expedition, stn 612, 4°46'S - 55°33'E, 10 m, *Pacillopora verrucosa*, 24.XII.1992, C. Fransén coll.: 1 ♀ (RMNH D 47262); Aride I., stn 711,

4°13'S - 55°40'E, *P. verrucosa*, 18-19.XII.1992: 1 ♂ (RMNH D 47263); île Desnoëufs, stn 783, 6°12'S - 53°02'E, *P. eydouxi*, reef slope to 10 m, 2.I.1993: 1 ♀ (RMNH D 47264).

Comoro Is. Mayotte, 10 m, September 1959, A. Crosnier coll.: 1 ♀ (MNHN-B 8260).

Îles Glorieuses. "Alert", stn 219, 14-20 m, R. W. Coppinger coll.: 1 ♂ (BMNH 1882.24).

Mozambique. Coconut Bay, 17.V.1973: 2 ♂♂ (SAM A43249).

South Africa. Eastern Cape Province, Mbotye, 13.VII.1956: 1 ♂ (SAM A39647).

Madagascar. Tamarave, 1880, De Lartigue coll.: 1 ♂, 1 ♀ (MNHN-B 23072); 1905: 1 ♂ (MNHN-B 16541).

Mauritius. 2 ♂♂ (MNHN-B 16532). — 1913, P. Carié coll.: 1 ♂, 1 ♀ (MNHN-B 16528); récif du Grand Port: 3 ♀♀ (MNHN-B 25347).

Maldives. Addu Atoll, "Xarifa", 9 m, *Seriatopora*, 30.XII.1957, S. Gerlach coll.: 1 ♂ (MNHN-B 16529); 15 m, January 1958: 2 ♂♂ (MNHN-B 16530).

Chagos Archipelago. Salomon Is, Percy Sladen Trust Expedition, 1905: 1 ♂, 1 ♀ (USNM 41334); Egmont Is: 1 ♂ (USNM 41333).

Christmas I. 1940, C. A. Gibson-Hill coll.: 2 ♂♂ (ZRC 1970.7.13.49-50).

Cocos (Keeling) Is. 1941, C. A. Gibson-Hill coll.: 1 ♂ (ZRC 1965.11.22.124), 4 ♂♂, 2 ♀♀ (ZRC 1970.7.13.39-48).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Red Sea and the Persian Gulf.

REMARKS

The type locality of *T. rufopunctata* was not given in its description (Herbst 1799). Galil (1984) presents evidence that *Grapsilus maculatus* MacLeay, 1838 is a junior synonym of *T. rufopunctata*, not of *T. tigrina* Eydoux et Souleyet, 1842.

Trapezia septata Dana, 1852

Trapezia septata (var.) Dana, 1852b: 260.

Trapezia areolata — Heller 1865: 25, 256, 261 (Nicobar Is). — Henderson 1893: 336, 366 (Sri Lanka). — Tweedie 1950: 126 (Cocos [Keeling] Is). — Sankarankutty 1966a: 351, 360 (India). — Garth 1974: 205 (Sri Lanka). — Lunder 1974: 7 (Andaman Sea). — Tsareva 1980: 120 (Western Australia). — Black & Prince 1983: 140 (Western Australia). Not *T. areolata* Dana, 1852.

Trapezia ferruginea var. *areolata* — Alcock 1898: 221 (Sri Lanka, Andaman Sea, Andaman Is, Nicobar

Is). — Laurie 1906: 410 (Sri Lanka). — Calman 1909: 705 (Christmas I.). — Gravely 1927: 144 (India). — Chen 1933: 109 (Sri Lanka). — Chopra & Das 1937: 410 (Andaman Sea). — Sankarankutty 1962: 148 (Andaman Is).

Trapezia septata — Galil 1985: 288, figs 2, 5, 6 (Sri Lanka). — Morgan 1990: 52 (Western Australia).

MATERIAL EXAMINED. — **Thailand (Andaman Sea).** Phuket I., Cape Phanwa & Makham Bay, 25-26.VIII.1980, P. Castro coll.: colour photographs. — Phuket I., Cape Phanwa, 18.X.1990, T. Komai coll.: 3 ♂♂, 4 ♀♀ (CBM ZC 2344).

Cocos (Keeling) Is. 1941, C. A. Gibson-Hill coll.: 5 ♂♂, 3 ♀♀ (ZRC 1965.11.22.49-56), 1 ♂, 1 ♀ (ZRC 1978.7.14.1-2).

DISTRIBUTION. — Known only from the northeastern Indian Ocean (Sri Lanka to Western Australia) to the Pacific Ocean (Japan to Samoa).

Trapezia speciosa Dana, 1852

Trapezia speciosa Dana, 1852a: 83. — Richters 1880: 151, pl. 16, figs 9-12 (Mauritius). — Türkyay 1981: 59 (Mauritius). — Serène 1984: 278, fig. 186, pl. 38E (La Réunion). — Castro 1997b: 129, pl. 11 (Seychelles, La Réunion).

Trapezia digitalis forme *speciosa* — Bouvier 1915: 273 (Mauritius).

Trapezia digitalis speciosa — Michel 1964: 31 (Mauritius).

MATERIAL EXAMINED. — **Seychelles.** Praslin I., 17.II.1972, A. J. Bruce coll.: 2 ♂♂, 1 ♀ (MNHN-B 23048).

La Réunion. Outer reef slope, 5 m, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 16093); 5 m: 2 ♂♂, 1 ♀ (MNHN-B 25305), 1 ♀ (MNHN-B 25311), 1 ♂ (MHNR-B 27); 10 m: 1 ♂ (MNHN-B 25307); *Poecilopora daniicornis*, 5 m: 1 ♂, 1 ♀ (MHNR-B 28); *P. eydouxi*: 2 ♂♂, 1 ♀ (MNHN-B 25302); 15 m, *P. eydouxi*, 30.IX.1976: 1 ♂, 1 ♀ (MHNR-B 29); 30 m, *Stylophora*, 25.XI.1976: 1 ♂, 1 ♀ (MNHN-B 8328); 5 m, 28.XI.1976: 2 ♀♀ (MNHN-B 8327); 28.XII.1976: 1 ♂, 1 ♀ (MNHN-B 25310); 20 m, 13.III.1977: 1 ♂ (MNHN-B 25308); La Saline, 5 m, *Stylophora*: 2 ♂♂, 1 ♀ (MNHN-B 25304); 20 m, *S. mordax*: 1 ♂, 1 ♀ (MNHN-B 8326); 5 m, 1977: 2 ♂♂ (MNHN-B 25309); *Stylophora*, 24.I.1977: 1 ♀ (MNHN-B 25303); 10 m, 18.VIII.1977: 2 ♂♂, 1 ♀ (MNHN-B 25306). — M. Peyrot-Clausade coll.: 1 ♀ (MNHN-B 25301). — Saint Gilles, reef flat, 17.IX.1982, M. de Saint Laurent coll.: 4 ♂♂, 4 ♀♀ (MHNR-B 30). — La Saline, outer reef slope, 20 m, *P. brevicornis*, 8.IX.1996, P. Castro & S. Ribes coll.:

4 ♂♂, 4 ♀♀ (MHNR-B 31); Saint Gilles, reef flat, 1 m, *P. damicornis*, 11.IX.1996: 4 ♂♂, 4 ♀♀ (MHNR-B 32).

Mauritius. Récif du Grand Port, 1913, P. Carié coll.: 1 ♂ (MNHN-B 25348).

Chagos Archipelago. Diego Garcia, South Point, Royal Society Expedition, 11.VII.1967, J. D. Taylor coll.: 2 ♂♂, 3 ♀♀ (BMNH 1969. 1174. 5).

DISTRIBUTION. — Only known from the western and central Indian Ocean (Seychelles to the Chagos Archipelago) and the Pacific Ocean (South China Sea to French Polynesia).

Trapezia tigrina Eydoux et Souleyet, 1842

Cancer rufopunctatus — Rüppell 1830: 27 (Red Sea). Not *T. rufopunctata* (Herbst, 1799).

Trapezia tigrina Eydoux et Souleyet, 1842: 232, pl. 2, fig. 4. — Serène 1984: 275, fig. 182, pl. 39C, D (Red Sea, Seychelles, Mauritius). — Galil & Lewinsohn 1984: 166 (Red Sea, Aden, Somalia, Seychelles, Maldives). — Galil 1988b: 167, fig. 5 (Red Sea). — Hogarth 1989: 106 (Oman); 1994: 103 (Oman).

Trapezia rufopunctata — Heller 1861a: 13 (Red Sea); 1861b: 348, 350 (Red Sea). — Milne Edwards 1868: 71 (Zanzibar). — Hilgendorf 1869: 75, pl. 2, fig. 3 (part) (Zanzibar). — Kossmann 1877: 44 (Red Sea). — De Man 1880: 176 (Red Sea); 1881: 94 (Red Sea). — Mierts 1884b: 536 (part) (Seychelles). — Klunzinger 1913: 309, pl. 7, fig. 13 (Red Sea). — Garth 1971: 188 (Maldives). Not *T. rufopunctata* (Herbst, 1799).

?*Trapezia punctata* Coulon, 1864: 569 (Red Sea).

Trapezia ferruginea var. *rufopunctata* — Paulson 1875: 7, 54, 57, pl. 7, figs 3, 3a (Red Sea).

Trapezia maculata — Henderson 1893: 336, 366 (Sri Lanka). — Alcock 1898: 221 (Andaman Is.). — Nobili 1901: 16 (Red Sea); 1905: 10 (Tanzania); 1906b: 293 (Red Sea, Gulf of Aden). — Gravier 1920: 470 (part) (Madagascar). — Bals 1924: 13 (Red Sea). — Pesta 1928: 72 (Red Sea). — Ramadan 1936: 35 (Red Sea). — Monod 1938: 142 (Red Sea). — Stella 1953: 65 (Red Sea). — Sankarankutty 1961: 130 (Laccadive Is.).

Trapezia ferruginea var. *maculata* — Borradaile 1902: 265 (Maldives).

?*Trapezia maculata* — Lenz 1905: 351, 390 (Aldabra). — Laurie 1906: 410 (Sri Lanka). — Strebbling 1910: 304 (South Africa).

?*Trapezia ferruginea maculata* — Lenz 1910: 553 (Europa I.).

Trapezia cynodoce maculata — Rathbun 1911: 235 (Chagos Archip.).

Trapezia ferruginea maculata — Lenz 1912: 4 (Red Sea). — Michel 1964: 31 (Mauritius).

Trapezia ferruginea forme *maculata* — Bouvier 1915: 272 (part) (Mauritius).

Trapezia cynodoce var. *maculata* — Laurie 1915: 415, 462 (Red Sea).

Trapezia guttata — Barnard 1950: 277 (Mozambique). Not *T. guttata* Rüppell, 1830.

Trapezia rufopunctata var. *maculata* — Chen 1933: 110 (Sri Lanka). — Guinot 1962a: 240 (part) (Maldives).

Trapezia aff. *danai* — Serène 1971: 136, fig. 14A (part) (Maldives?). — Tsareva 1980: 119 (Western Australia).

Trapezia wardi Serène, 1971: 140, figs 7, 8, 11, 12, 17, 18, 19, 20, 23, 25 (Red Sea, Mauritius, Maldives, Sri Lanka). — Edwards & Emberton 1980: 237 (Red Sea).

Trapezia aff. *maculata* — Garth 1974: 205 (Maldives).

Trapezia aff. *wardi* — Garth 1974: 205 (Maldives, Sri Lanka); 1984: 120 (Seychelles).

Trapezia aff. *tigrina* — Garth 1974: 205 (Sri Lanka).

MATERIAL EXAMINED. — **Red Sea.** No location: 1 ♀ (MNHN-B 2964). — Jiddah, M. Boua coll.: 1 ♂, 2 ♀♀ (MNHN-B 2962). — Hofun, 1929, E. Ninni coll.: 1 ♂ (MNHN-B 23058). — Jubal, 20.XI.1928, R. Dollfus coll.: 1 ♂, 1 ♀ (MNHN-B 8348); 29.XII.1928: 1 ♀ (MNHN-B 16510). — "Calypso", 1952: 1 ♀ (MNHN-B 8288); Abu Lar I.: 1 ♀ (MNHN-B 16545), 4 ♂♂, 2 ♀♀ (MNHN-B 16534). — Port Sudan, August-September 1978, H. Emberton coll.: 1 ♂ (RMNH D 47328). — Dahlak Archip., "Akademik Petrowsky", cr. 14, 28.I.1984: 2 ♀♀ (ZMMU Ma-4468).

Gulf of Aden. Djibouti, 1897, H. Coutière coll.: 3 ♂♂, 4 ♀♀, 1 juv. (MNHN-B 16514). — Obock, 1897, F. Jousseume coll.: 1 ♀ (MNHN-B 16515). — Musha I., 27.I.1904, C. Gravier coll.: 1 ♀ (MNHN-B 25342). — Aden, Simon coll.: 1 ♂ (MNHN-B 16533). — Aden, I. M. McCormick coll.: 2 ♀♀ (USNM). — Sikha I., "Akademik Petrowsky", cr. 14, 29.XI.1983: 2 ♂♂ (ZMMU Ma-4491). — "Odyssey", cr. 34, 13°59.5'N - 48°24.7'E, 3-5 m, 23.IV.1985: 1 ♂, 2 ♀♀ (ZMMU Ma-4435).

Oman. *Pocillopora damicornis*, P. W. Glynn coll.: 2 ♀♀, 1 juv. (LACM); off Christian Cemetery, 28.IX.1982: 3 ♂♂, 1 ♀ (LACM).

Persian Gulf. Hormuz, 25°56.5'N - 56°28.2'E, 10-25 m, *P. damicornis*, 29.VI.1995, M. Apel coll.: 1 ♂, 1 ♀ (SMF 24081); 25°49'N - 56°28.2'E, 3-15 m: 1 ♂ (SMF 24082).

Somalia. Near Berbera, "Akademik A. Kovalevsky", 19.IX.1962: 2 ♂♂, 3 ♀♀ (ZMMU Ma-2233).

Kenya. Bambuni Beach, 19-26.XI.1969, L.B. Holthuis coll.: 1 ♀, 1 juv. (RMNH D 47329).

Tanzania. Zanzibar, G. Grandier coll.: 1 ♂

(MNHN-B 2966), 1 ♀ (MNHN-B 2965). — Zanzibar. A. J. Bruce coll.: 1 ♀ (RMNH D 34988). **Seychelles.** No location, 1972, A. J. Bruce coll.: 2 ♂♂, 2 ♀♀ (MNHN-B 8246). — Reves 2 Expedition, stn 27, 4°56.6'S - 54°58.5'E, 52 m, 8.IX.1980: 3 ♂♂, 2 ♀♀ (MNHN-B 11631).

Saya de Malha Bank. "Odyssey", cr. 33, 12-13 m, 9.VI.1984: 2 ♂♂, 1 ♀ (ZMMU). — "Vitiáz II", cr. 17, 20 m; 2 ♂♂ (ZMMU Ma-4478).

Mozambique. Lourenço Marques [= Maputo], June 1920: 1 ♂, 1 ♀ (SAM A43243). — Delagoa [= Lourenço Marques] Bay, 1912: 2 ♀♀ (SAM A8331). — Jangamo, July 1968: 1 ♀ (SAM A13515).

Madagascar. Diego Suarez, May 1919, R. Decary coll.: 2 ♂♂ (MNHN-B 16513). — Tamatave, October 1880, De Lartigues coll.: 1 ♂, 2 ♀♀ (MNHN-B 23091).

La Réunion. La Saline, outer reef slope, 10 m, S. Ribes coll.: 1 ♂, 1 ♀ (MNHN-B 23050); 5 m, *P. eydouxi*: 1 ♂, 1 ♀ (MIINR-B 24).

Mauritius. P. Carié coll.: 1 ♀ (MNHN-B 23054); 1913: 1 ♂, 3 ♀♀ (MNHN-B 8245), 1 ♂, 1 ♀ (MNHN-B 8247), 1 ♂, 1 ♀ (MNHN-B 16509), 1 ♂ (MNHN-B 16609); 1914: 1 ♂, 1 ♀ (MNHN-B 23043); récif du Grand Port, 1913: 1 ♂ (MNHN-B 16536), 1 ♂ (MNHN-B 16611), 11 ♂♂, 9 ♀♀ (MNHN-B 25345); Le Chaland, 1913: 1 ♂ (MNHN-B 16512).

Maldives. Addu Atoll, "Xarifa", S. Gerlach coll.: 1 ♂, 1 ♀ (MNHN-B 16535); January 1958: 3 ♀♀ (MNHN-B 23051). — Male Atoll, 21.III.1964, J. S. Garth coll.: 1 ♂, 1 ♀ (LACM).

Chagos Archipelago. Diego Garcia, 1,5 m, "Vitiáz", cr. 35, 12.X.1962: 1 ♂ (ZMMU Ma-2197).

Nicobar Is. Galathea Expedition: 1 ♀ (USNM).

DISTRIBUTION. — Throughout the Indo-West Pacific region except the Coral Sea and the Hawaiian Islands.

BIOGEOGRAPHY

Most Indian Ocean and Red Sea species of *Quadrella*, *Tetralia*, *Tetraloides* and *Trapezia* are widely distributed across the Indo-West Pacific region. Three of these, *Trapezia digitalis*, *T. formosa* and *T. ferruginea*, even reach into the eastern Pacific region. The only species of these genera that are endemic to the Indian Ocean are *Tetralia cavimana*, which is restricted to the Red Sea and the northwestern Indian Ocean, and *Trapezia richtersi*, known only from the Indian Ocean as far east as the Andaman Sea. Very few species (one of *Quadrella*, two of *Trapezia* and one of *Tetralia*) and no endemics are so far known from the Persian Gulf, one of the few marginal regions of the Indian Ocean. In contrast, peri-

pheral endemism is more common in the Pacific Ocean. Four species of *Trapezia* seem to be endemic to southeastern Polynesia (Castro 1997b), one to the Hawaiian Islands and the north-central Pacific (Castro 1998a) and one to the eastern Pacific (Castro 1996).

Some colour variations exist when Indian Ocean populations of some of the species are compared to populations of the same species from the Pacific. Although morphologically identical, these populations may prove to be geographically isolated gene pools.

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